TETRA TECH

January 19, 2015

Mr. James Johnson
On-Scene Coordinator
U.S. Environmental Protection Agency, Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

Subject: **Interim Data Summary of Volatile Organic Compounds Sampling Results During Ongoing Baseline Off-Site Air Monitoring**
West Lake Landfill Site, Bridgeton, Missouri
CERCLIS ID: MOD079900932
EPA Region 7, START 4, Contract No. EP-S7-13-06, Task Order No. 0058
Task Monitor: James Johnson, On-Scene Coordinator

Dear Mr. Johnson:

Tetra Tech, Inc. is submitting the attached Interim Data Summary Report regarding volatile organic compound sampling during ongoing air monitoring at locations off site of the West Lake Landfill site (WLLS) in Bridgeton, Missouri. This monitoring is occurring during a baseline period prior to start of construction of an isolation barrier at WLLS. If you have any questions or comments, please contact me at (816) 412-1775.

Sincerely,

Robert Monnig, PE
START Project Manager

for Ted Faile, PG, CHMM
START Program Manager

Enclosures

cc: Debra Dorsey, START Project Officer (cover letter only)

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INTERIM DATA SUMMARY OF ONGOING BASELINE OFF-SITE AIR MONITORING VOLATILE ORGANIC COMPOUNDS

WEST LAKE LANDFILL SITE
BRIDGETON, MISSOURI
CERCLIS ID: MOD079900932

Superfund Technical Assessment and Response Team (START) 4
Contract No. EP-S7-13-06, Task Order No. 0058

Prepared For:

U.S. Environmental Protection Agency
Region 7
Superfund Division
11201 Renner Blvd.
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January 19, 2015

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EXECUTIVE SUMMARY

The Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) is assisting the U.S. Environmental Protection Agency (EPA) with baseline monitoring at off-site locations around the West Lake Landfill site (WLLS) in Bridgeton, Missouri, during a pre-construction, baseline period prior to initiation of construction of a planned isolation barrier at WLLS. This air monitoring will provide data for use to (1) evaluate pre-construction concentrations of chemical and radiological parameters of potential concern in outdoor air, and (2) optimize the sampling and monitoring plan for off-site air monitoring to occur during construction of the isolation barrier. This interim report summarizes results of volatile organic compound (VOC) sampling from the start of monitoring to November 6, 2014. Data collected after November 6, 2014 will be evaluated in a supplemental report.

Since May 2014, ongoing baseline period off-site air monitoring for VOCs has occurred at the following monitoring stations according to the EPA-approved quality assurance project plan (QAPP):

Station 1 – Robertson Fire Protection District Station 2, 3820 Taussig Rd., Bridgeton, Missouri

Station 2 – Pattonville Fire Department District, 13900 St Charles Rock Rd., Bridgeton, Missouri

Station 3 – Pattonville Fire Department District Station 2, 3365 McKelvey Rd., Bridgeton, Missouri

Station 4 – Spanish Village Park, 12827 Spanish Village Dr., Bridgeton, Missouri

Station 5 – St. Charles Fire Department Station #2, 1550 S. Main St., St. Charles, Missouri.

The Station 1 through 4 locations were selected primarily for their proximate positions around WLLS (these stations are approximately 0.3 to 1 mile from WLLS, in various directions from WLLS). Station 5, designated as a reference (or background) station, is farther away from WLLS than the other stations, but still within the general vicinity so as to be representative of the North St. Louis County and eastern St. Charles County area.

This interim report summarizes results of VOC sampling from the start of monitoring to November 2014. Comparisons of VOC concentrations among the air monitoring stations as well as VOC concentrations detected at EPA National Air Toxics Trends Stations (NATTS) was performed via multiple statistical tests and examination of boxplots. VOC sampling results from the air monitoring stations off site of the WLLS indicated that the VOCs analyzed were variously:

1. Not detected or detected less than 2% of the time (thus their median concentrations are much less than the laboratory's detection capability);
2. Detected, but showed no statistical difference from the St. Louis NATTS concentrations (based on Kruskal-Wallis statistical test and confirmed by examination of boxplots);
3. Detected at concentrations that statistically tended to be higher than those detected at the St. Louis NATTS (based on Kruskal-Wallis testing and boxplot examination), but were comparable to concentrations detected at other urban area NATTS (based on examination of boxplots).

Overall, the VOC measurements obtained from the off-site monitoring stations appear typical for outdoor urban environments.

1.0 INTRODUCTION

The Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) has been tasked by the U.S. Environmental Protection Agency (EPA) to assist with baseline monitoring at off-site locations around the West Lake Landfill site (WLLS) in Bridgeton, Missouri. The monitoring effort began in May 2014 and is ongoing. This interim report summarizes organic compound (VOC) data acquired from the start of monitoring to November 6, 2014. Data collected after November 6, 2014 will be evaluated in a supplemental report.

START's tasks have included: (1) assembling and maintaining a network of off-site air monitoring stations with instrumentation and sampling devices to measure parameters of concern, (2) collecting samples and coordinating laboratory analysis, (3) assisting EPA with data acquisition and management, (4) documenting the off-site air monitoring efforts, and (5) validating/verifying initial screening of the data. The objectives of this report are to present an interim summary of the VOC data acquired, including findings related to data validation, verification, and usability.

2.0 PROBLEM DEFINITION, BACKGROUND, AND SITE DESCRIPTION

EPA is conducting ongoing air monitoring at locations off site of WLLS during a pre-construction, baseline period prior to initiation of construction of a planned isolation barrier at WLLS. Air monitoring during the baseline period will provide data for use to (1) evaluate pre-construction concentrations of chemical and radiological parameters of potential concern in outdoor air, and (2) optimize the sampling and monitoring plan for the off-site air monitoring to occur during construction of the isolation barrier. During barrier construction, air monitoring will occur to address concerns that construction operations at WLLS could impact human health and the environment via release to ambient air of solid waste landfill gases of concern or of particulates with radiologically-impacted materials (RIM).

West Lake Landfill is an approximately 200-acre property including several closed solid waste landfill units that accepted wastes for landfilling from the 1940s or 1950s through 2004, plus a solid waste transfer station, a concrete plant, and an asphalt batch plant. WLLS is at 13570 St. Charles Rock Road in Bridgeton, St. Louis County, Missouri, approximately 1 mile north of the intersection of Interstate 70 and Interstate 270 (see Appendix A, Figure 1). WLLS was used for limestone quarrying and crushing operations from 1939 through 1988. Beginning in the late 1940s or early 1950s, portions of the quarried areas and adjacent areas were used for landfilling municipal refuse, industrial solid wastes, and construction/demolition debris. In 1973, approximately 8,700 tons of leached barium sulfate residues (a remnant from the Manhattan Engineer District/Atomic Energy Commission project) were reportedly mixed with approximately 39,000 tons of soil from the 9200 Latty Avenue site in Hazelwood, Missouri, transported to the WLLS, and used as daily or intermediate cover material. In December 2004, the Bridgeton Sanitary Landfill—the last landfill unit to receive solid waste—stopped receiving waste pursuant to an agreement with the City of St. Louis to reduce potential for birds to interfere with Lambert Field International Airport operations. In December 2010, Bridgeton Landfill detected changes—elevated temperatures and elevated carbon monoxide levels—in its landfill gas extraction system operating at the South Quarry of the Bridgeton Sanitary Landfill portion of the Site (a landfill portion not associated with known RIM). Further investigation indicated that the South Quarry Pit landfill was undergoing an exothermic subsurface smoldering event (SSE). In 2013, potentially responsible parties committed to constructing an isolation barrier that would separate the Bridgeton Landfill undergoing the SSE from the RIM-containing portions of WLLS (EPA 2014).

3.0 SAMPLING STRATEGY AND METHODOLOGY

EPA and START began setup of the five off-site monitoring stations in April 2014; these activities included installations of electrical service, instrument weather housings, monitoring and sampling devices, and a wireless remote monitoring network. Since April/May, 2014, ongoing baseline period off-site air monitoring and sampling have occurred at the following monitoring stations according the approved quality assurance project plan (QAPP) (Tetra Tech 2014a) (see Appendix A, Figure 1):

Station 1 – Robertson Fire Protection District Station 2, 3820 Taussig Rd., Bridgeton, Missouri

Station 2 – Pattonville Fire Department District, 13900 St Charles Rock Rd., Bridgeton, Missouri

Station 3 – Pattonville Fire Department District Station 2, 3365 McKelvey Rd., Bridgeton, Missouri

Station 4 – Spanish Village Park, 12827 Spanish Village Dr., Bridgeton, Missouri

Station 5 – St. Charles Fire Department Station #2, 1550 S. Main St., St. Charles, Missouri.

The Station 1 through 4 locations were selected primarily for their proximate positions around WLLS (these stations are approximately 0.3 to 1 mile from WLLS, in various directions from WLLS). Station 5 was designated as a reference (or background) station, and its location was selected according to the criterion that it be frequently upwind of WLLS and farther away from WLLS than the other stations, but still within the general vicinity so as to be representative of the North St. Louis County and eastern St. Charles County area. Station 5 is farther away from WLLS than the other stations (approximately 2.3 miles west of WLLS), frequently upwind of WLLS, roughly twice the distance from WLLS than the next closest station (Station 3), and within the general vicinity of the North St. Louis County and eastern St. Charles County area so as to be representative of that area (see wind rose in Appendix A, Figure 1).

VOCs were identified as a parameter of potential concern in the QAPP (Tetra Tech 2014a) based on historical information regarding the site and program experience with similar types of sites. Sampling for VOCs via Summa® canisters occurs each week at the air monitoring stations and is consistent with EPA methods and standard operating procedures (SOP) specified in the approved QAPP (Tetra Tech 2014a). The Summa® canister is fitted with a passive flow regulator to enable collection of an air sample for a continuous 24-hour period. The sampled Summa canisters are submitted to TestAmerica of Earth City, Missouri for VOC analysis. All Summa® sampling accords with EPA Environmental Response Team SOP 4231.1704 – Summa® Canister Sampling, and with EPA Region 7 SOP 2313.04 – Air Sampling with Stainless Steel Canisters. In accordance with the EPA-approved QAPP, a weekly field duplicate sample was collected at one of the off-site air monitoring stations, and one un-sampled Summa canister was maintained in the field during the sampling activities and submitted as a trip blank.

4.0 INTERIM SUMMARY AND EVALUATION OF VOC DATA

The following sections present interim data summaries of the VOCs assessed during the ongoing baseline monitoring period, including time series and box plots of the data, and results of statistical analyses.

4.1 DATA VALIDATION, VERIFICATION, AND USABILITY

As laboratory analytical reports are received for the VOC analysis, START reviews and qualifies the data according to the EPA *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* guidance document (EPA 2008). This is standard practice for EPA data. EPA conducted a review of the data validation reports to ensure that the data were correctly qualified for use in decisions making. A data validation report is appended to each analytical laboratory report and included in the data deliverable packages (see Tetra Tech 2014b, c, d, e). Qualifications to the data from START's review are indicated by qualifier flags that accompany the data presented herein. Overall, review of the laboratory analytical data packages indicated that quality of the VOC data was acceptable and usable as qualified for the intended purposes of the data.

4.2 VOC RESULTS AND EVALUATION

The following describes results of the May 8 through November 6, 2014 weekly VOC sampling. Data collected after November 6, 2014 will be evaluated in a supplemental report.

4.2.1 Summary of VOC Results

Tabulated weekly results for the five monitoring stations are in Appendix B (see Tables B-1 through B-5). Table C-1 in Appendix C summarizes the number of detections per VOC for each of the stations.

Notably, some VOCs were not detected, or detected very infrequently (several VOCs were detected only around 1 to 2 percent of the time). Frequencies of detections of these VOCs are reported in Table C-1, Appendix C; however, they were not subject to further evaluation because the data would provide no useful information besides the observation that the concentrations are near the detection capability of the laboratory.

4.2.2 Comparison of Results Among Off-Site Monitoring Stations

Differences in VOC concentrations among the air monitoring stations are evaluated and described in this section so that data users can be aware of them when using the pre-construction baseline data. Comparisons of VOC concentrations among the air monitoring stations proceeded via multiple comparisons statistical testing and examination of boxplots. The following describes these evaluations.

<u>Kruskal-Wallis Statistical Test</u>

The Kruskal-Wallis statistical test was used to test for differences in VOC concentrations among the five monitoring stations. The Kruskal-Wallis test compares multiple treatments (such as the multiple monitoring locations), and was selected in particular because it is a non-parametric statistical (rank- or percentiles-based) test that can accommodate non-detect (or "less than") results found in the VOC data. Before performance of the test, the data were prepared for the Kruskal-Wallis test as recommended in *Statistics for Censored Environmental Data Using Minitab® and R* (Helsel 2012). That is, the data were censored at the highest reporting limit in the dataset by assigning all values below the highest reporting limit (including all non-detects and any reported value less than the highest reporting limit) a low and arbitrary value; the value "-1" was used. The statistical software package R was used to conduct the Kurskal-Wallis tests. The analysis suggested statistically significant differences in concentrations of these VOCs among the five monitoring stations:

- **Methylene chloride:** A difference was detected among the stations; however, the test was inconclusive regarding station-to-station differences. Data users should be aware that a significant portion of the data has been affected by detections of methylene chloride in laboratory blank samples (samples results significantly affected were not included in the statistical analysis; these data were coded "UB" in accordance with the data validation guidelines).[1]

- **Trichloroethene:** Station 2 tended to have higher measurements than Stations 1, 3, and 4.
- **Styrene:** Station 1 tended to have higher measurements than all other stations.

A summary of the Kruskal-Wallis test results is in Appendix C, Table C-2.

Boxplots

Boxplots of the VOC results (for those VOCs detected in more than 2 percent of the samples) were constructed and evaluated to verify results of the Kruskal-Wallis statistical testing (and to compare the VOC results to other datasets [see Section 4.2.3]). Boxplots render visual comparisons of data by displaying relative positions of the 25th, 50th, and 75th percentiles, and also individual outlier data points. The "NADA" (Nondetects and Data Analysis for environmental data) for the statistical software package R was used to create "censored" boxplots of the VOC data. In constructing the censored boxplots, the NADA software accounts for non-detect values and displays a horizontal line across the boxplots representing the maximum "less than" value in the data. Boxplot elements above the line are statistically accurate, but boxplot elements below the line represent only estimated percentiles (based on the distribution of the uncensored data). Boxplots are in Appendix D.

4.2.3 Comparison of Results to National Air Toxics Trends Stations Data

VOC data from the WLLS air monitoring stations were additionally compared to VOC data from the EPA National Air Toxics Trends Stations (NATTS) network of air monitoring stations.[2] VOC data from the St. Louis NATTS monitoring station near downtown St. Louis, Missouri[3] (see Appendix A, Figure 2) was retrieved from EPA's Air Quality System (AQS) Data Mart.[4] The St. Louis NATTS data are by design representative of background urban air quality in the St. Louis metropolitan area, and, therefore, are appropriate for comparison with the VOC data collected at off-site locations surround WLLS. The

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[1] The blank detections are likely related to the common laboratory use of methylene chloride as an extraction solvent for semi-volatile organic compounds (with such use resulting in the presence of methylene chloride in the indoor air of the laboratory).

[2] Starting in 2003, EPA has been working with state and local partners to develop the NATTS program to monitor air toxics. The principal objective of the NATTS network is to provide long-term monitoring data across representative areas of the country for priority pollutants in ambient air and to establish overall trends. Currently, data are collected at 27 NATTS sites consisting of 20 urban and 7 rural sites. More information about the NATTS program and a listing of these sites can be found at http://www.epa.gov/ttnamti1/natts.html.

[3] The St. Louis NATTS is operated and maintained by the MDNR under a grant from EPA. The sampling and analytical methodologies used at the NATTS are comparable to those used for the WLLS air monitoring sampling.

[4] EPA's Air Quality System (AQS) Data Mart is available online at http://www.epa.gov/airdata/

NATTS network reports 37 of the 38 VOC analytes reported in the WLLS air monitoring (the analyte not reported by NATTS—1,2-dichloroethane—has not been detected at the WLLS air monitoring stations).

The Kruskal-Wallis test (with examinations of boxplots) was used to test for differences in VOC concentrations between the 2013 St. Louis NATTS data and WLLS air monitoring station data (as applied to the WLLS air monitoring station data in Section 4.2.1). Data from 2013 were used because the 2014 dataset was incomplete at the time of this report preparation. The statistical testing suggested that these VOCs tended to be detected at higher concentrations at the WLLS air monitoring stations than had been detected at the St. Louis NATTS in 2013:

- **Chloroethane:** A difference was detected among the stations (among Stations 1-5 and the St. Louis NATTS); however, the test was inconclusive regarding station-to-station differences. The boxplots suggest that Stations 1-5 tended to have higher measurements than the St. Louis NATTS.

- **Chloromethane:** Stations 1, 2, and 3 tended to have higher measurements than the St. Louis NATTS.

- **Methylene chloride:** Station 2 tended to have higher measurements than the St. Louis NATTS.

- **Trichloroethene:** Stations 2 and 5 tended to have higher measurements than the St. Louis NATTS.

- **Styrene:** A difference was detected among the stations (among Stations 1-5 and the St. Louis NATTS station); however, the test was inconclusive regarding station-to-station differences. The boxplots suggest that Station 1 tended to have higher measurements than the St. Louis NATTS.

A summary of the Kruskal-Wallis test results is in Appendix C, Table C-2. The 2013 St. Louis NATTS data are presented in the boxplots in Appendix D.

The WLLS air monitoring data for the above VOCs was further compared to boxplots prepared by EPA of NATTS monitoring stations at other locations across the United States (see Appendix E). This comparison identified similar concentration distributions of these VOCs (chloroethane, chloromethane, methyl chloride, trichloroethene, and styrene) at other NATTS, indicating that concentrations of these VOCs detected at the WLLS air monitoring stations were not unusual for outdoor urban VOC measurements.

5.0 ANALYSIS OF RESULTS

As discussed above, statistical testing for differences in VOC concentrations between the 2013 St. Louis NATTS and WLLS air monitoring station data suggest five VOCs tended to be detected at higher concentrations at the WLLS air monitoring stations than at the NATTS: chloroethane, chloromethane, methylene chloride, trichloroethene (TCE), and styrene.

Regarding the detections of chloroethane and chloromethane, these analytes were detected at low concentrations, although statistically greater than St. Louis area background measured by the NATTS. The detection of these analytes will continue to be monitored and evaluated; however, these analytes are not carcinogens and have relatively high thresholds for noncarcinogenic health effects. The source(s) of these constituents is not known; however, these compounds are typically used as refrigerants, binders in paints and cosmetics, and are commonly found in landfills.

TCE is a common industrial solvent that frequently appears in groundwater contaminant plumes at cleanup sites from historic use and improper disposal. The chemical properties of TCE are such that if TCE were found in the buried waste at WLLS, it is likely to be found in the groundwater and released to the air. However, EPA reviewed groundwater data from WLLS and found that it did not contain TCE. Further, if TCE were found in the buried waste at WLLS, it likely would be detected in the leachate which results from moisture percolating through the buried waste material. However, TCE was also not detected in leachate samples collected from WLLS prior to treatment. Thus, TCE does not appear to be present in the buried waste at WLLS, and, by inference, the detections in ambient air are not believed to be the result of releases of this VOC from WLLS. EPA’s research into the air emissions reporting of various industrial facilities in the areas indicate that there are other possible sources of TCE. Ongoing monitoring and data analysis may shed more light on the possible source(s) of TCE for further review.

Methylene chloride, which was detected in the ambient air samples from WLLS at a statistically greater concentration than at the St. Louis NATTS, is a common laboratory contaminant. At the concentrations detected, methylene chloride is not believed to be a site-related contaminant.

Styrene was also detected at concentrations that may be statistically greater than the 2013 St. Louis NATTS data. Styrene is the precursor to polystyrene and a number of other copolymers. These materials are used in rubber, plastic, insulation, fiberglass, pipes, automobile and boat parts, food containers, and carpet backing. There are a number of possible sources for this constituent, including the landfill. It is present in the air monitoring data at relatively low concentrations and is not currently considered to be a carcinogen.

Although the WLLS data collection is ongoing and it is premature to draw definitive conclusions, the data that have been collected to date were obtained during the high temperature months of the year. Thus, it is expected that the VOC results obtained during the summer months will be generally representative of the highest values detected. VOCs are characteristically lower-molecular-weight compounds with low boiling points, leading to more volatilization and higher amounts detected during warmer temperatures. The monitoring effort will continue until EPA determines, based on a review of the data, that the data quality objectives have been met and that there is a robust data set for comparison with future monitoring data which may be collected to monitor future activities at WLLS.

6.0 SUMMARY OF OBSERVATIONS

Since April/May, 2014, ongoing baseline off-site air monitoring has been occurring according the approved QAPP (Tetra Tech 2014a) at five air monitoring stations off site of WLLS. EPA and START have conducted interim evaluations of the acquired data. Differences in VOC concentrations among the air monitoring stations off site of the WLLS and NATTS were evaluated. Comparisons of VOC concentrations among the air monitoring stations proceeded via multiple comparisons statistical testing and examination of boxplots. The following describes the findings.

Regarding the VOC sampling results from the air monitoring stations off-site of the WLLS, the VOCs analyzed were variously:

1. Not detected or detected less than 2% of the time (thus their median concentrations are much less than the laboratory's detection capability);
2. Detected, but showed no statistical difference from the St. Louis NATTS concentrations (based on Kruskal-Wallis statistical test and confirmed by examination of boxplots);
3. Detected at concentrations that statistically tended to be higher than those detected at the St. Louis NATTS (based on Kruskal-Wallis testing and boxplot examination), but were comparable to concentrations detected at other urban area NATTS (based on examination of boxplots).

Overall, the VOC measurements obtained from the off-site monitoring stations appear typical for outdoor urban measurements.

7.0 REFERENCES

Helsel, Dennis R. (Helsel). 2012. *Statistics for Censored Environmental Data Using Minitab® and R*, Second Edition. John Wiley & Sons, Inc.

Tetra Tech, Inc. (Tetra Tech). 2014a. Quality Assurance Project Plan for Baseline Off-Site Air Monitoring and Sampling, West Lake Landfill Site, Bridgeton, Missouri. May 27.

Tetra Tech. 2014b. Data Deliverable Package 01, West Lake Landfill Site, Bridgeton, Missouri. September 8, 2014.

Tetra Tech. 2014b. Data Deliverable Package 02, West Lake Landfill Site, Bridgeton, Missouri. September 8, 2014.

Tetra Tech. 2014c. Data Deliverable Package 03, West Lake Landfill Site, Bridgeton, Missouri. October 7, 2014.

Tetra Tech. 2014d. Data Deliverable Package 05, West Lake Landfill Site, Bridgeton, Missouri. November 10, 2014.

Tetra Tech. 2014e. Data Deliverable Package 06, West Lake Landfill Site, Bridgeton, Missouri. December 16, 2014.

U.S. Environmental Protection Agency (EPA). 2008. *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*. EPA 540-R-08-01. June.

EPA. 2014. Administrative Settlement Agreement and Order on A Consent for Removal Action - Preconstruction Work. EPA Docket No. CERCLA-07-2014-0002. April 20.

APPENDIX A

FIGURES

West Lake Landfill
Bridgeton, Missouri

Figure 1
Off-Site Air Monitoring Stations

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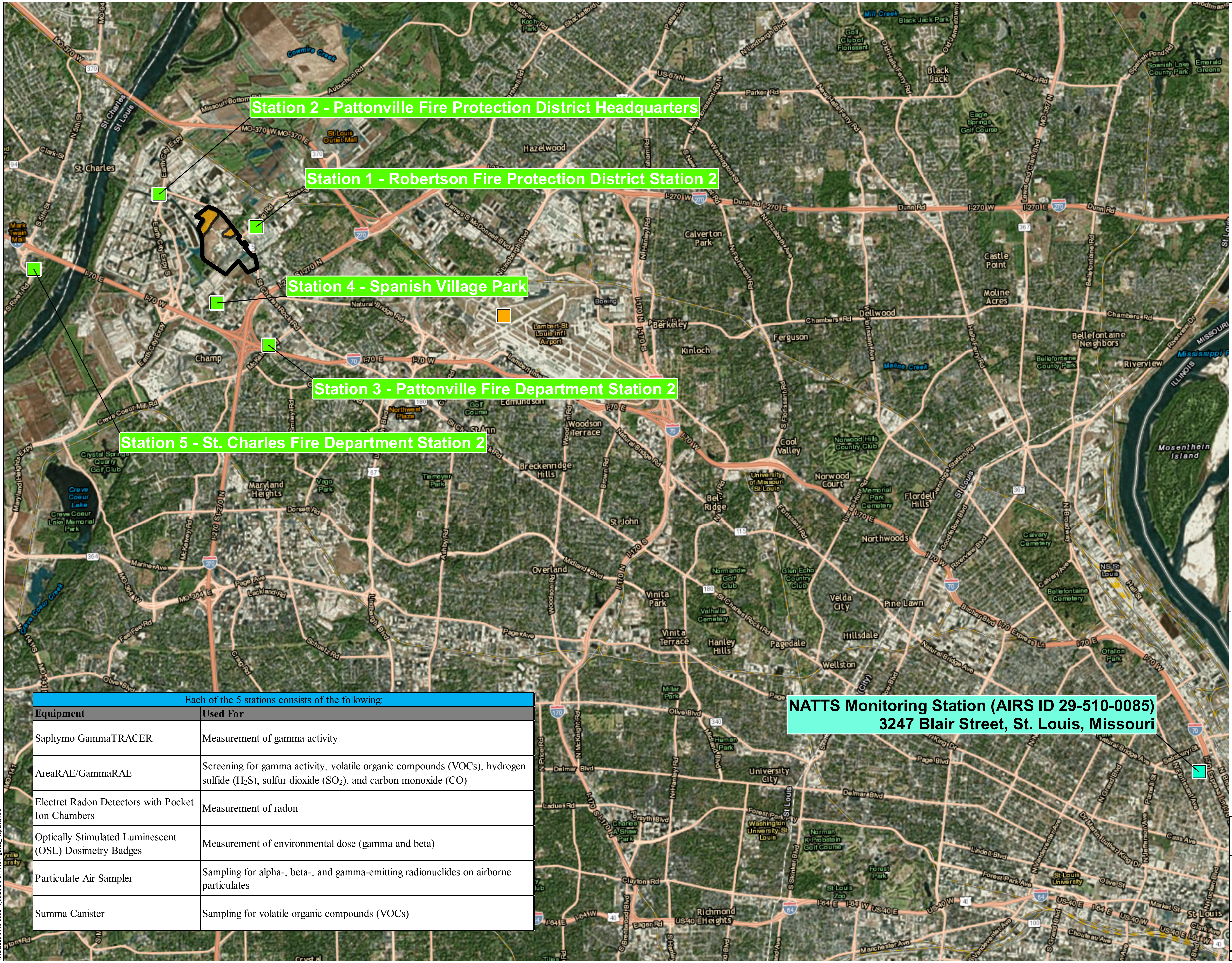
Date: 1/19/2015 Drawn By: Bill Spiking Project No: X9025.14.0058.000

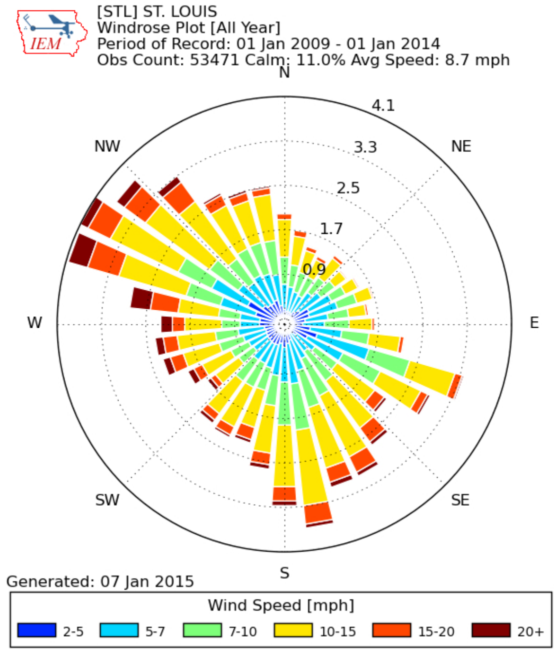


Each of the 5 stations consists of the following:	
Equipment	**Used For**
Saphymo GammaTRACER	Measurement of gamma activity
AreaRAE/GammaRAE	Screening for gamma activity, volatile organic compounds (VOCs), hydrogen sulfide (H_2S), sulfur dioxide (SO_2), and carbon monoxide (CO)
Electret Radon Detectors with Pocket Ion Chambers	Measurement of radon
Optically Stimulated Luminescent (OSL) Dosimetry Badges	Measurement of environmental dose (gamma and beta)
Particulate Air Sampler	Sampling for alpha-, beta-, and gamma-emitting radionuclides on airborne particulates
Summa Canister	Sampling for volatile organic compounds (VOCs)

Legend

- Lambert St. Louis International Airport Metar Station
- NATTS monitoring station
- Off-site air monitoring station
- Bridgeton Landfill
- West Lake Landfill Site Operable Unit 1 (radiological area)

NATTS National Air Toxics Trends Station



N

0 3,500 7,000

Feet

Source: ArcGIS Online Aerial Imagery, 2013; Iowa State University of Science and Technology, 2015

West Lake Landfill
Bridgeton, Missouri

Figure 2

Location of St. Louis NATTS Air Monitoring Station

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Date: 1/19/2015 Drawn By: Gustavo Orozco Project No: X9025.14.0058.000

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APPENDIX B

TABULATED VOC RESULTS

TABLE B-1
RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSIS FOR BASELINE SAMPLING PERIOD
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	STATION 1 Robertson Fire Protection Station 2, 3820 Taussig Road, Bridgeton, MO																		
	05/08/14	05/15/14	05/15/14 (dup)	05/23/14	05/30/14	06/06/14	06/13/14	06/13/14 (dup)	06/18/14 [2]	06/19/14	06/26/14	06/26/14 (dup)	07/03/14	07/10/14	07/24/14	07/31/14	08/06/14	08/14/14	08/21/14
Benzene	0.31 J	0.31 J	0.44 J	0.28 J	0.5 J	0.73	0.32 J	ND (0.18)	0.37 J	0.37 J	0.4 J	0.44 J	ND (0.18)	0.25 J	0.3 J	0.41 J	0.47 J	0.98	0.42 J
Benzyl chloride	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Bromomethane	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)
Carbon tetrachloride	0.38 J	0.47 J	0.46 J	0.77 J	0.47 J	0.46 J	0.48 J	0.31 J	0.46 J	0.4 J	0.27 J	0.34 J	0.36 J	0.37 J	0.69 J	0.54 J	0.41 J	0.44 J	0.27 J
Chlorobenzene	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chloroethane	0.1 J	ND (0.092)	ND (0.092)	0.13 U J B	ND (0.092)	ND (0.092)	0.47 J	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	0.13 J	ND (0.092)	ND (0.092)	0.41 J	ND (0.092)	0.094 J	ND (0.092)	ND (0.092)
Chloroform	ND (0.19)	ND (0.19)	ND (0.19)	0.39 J	0.24 J	0.32 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	0.19 J	0.22 J	ND (0.19)	0.34 J	1.5	0.55 J	0.51 J	0.22 J	ND (0.19)
Chloromethane	1.5	1.5 J	1.4 J	2.1	1.5	1.6	4.5	1.3	1.1	1.3	0.93 J	1	0.93 J	1.1	2	1.1	1.2	1.1	1 J
1,2-Dibromoethane (EDB)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,2-Dichlorobenzene	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
1,3-Dichlorobenzene	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
1,4-Dichlorobenzene	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	1.5	ND (0.38)
Dichlorodifluoromethane	2.2	2.1	2.7	2.4	2.7	1.2	1.1	0.82 J	0.81 J	0.81 J	1.8	2	1.9	2.1	2.2	3.1	2.1	2.4	2
1,1-Dichloroethane	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethene	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2-Dichloroethene	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2-Dichloropropane	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
cis-1,3-Dichloropropene	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
Ethylbenzene	0.39 J	ND (0.3)	ND (0.3)	ND (0.3)	0.58 J	0.48 J	ND (0.3)	ND (0.3)	ND (0.3)	0.4 J	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.45 J	ND (0.3)
Hexachlorobutadiene	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)
Methylene Chloride	0.91 J	0.93 U J	1.9 J	1.1 U J B	1.6 J	1.9	2.1	0.58 J	0.83 J	0.77 J	0.92 J	0.91 J	1.1 J	1.2 U J	0.78 U J	2.2 J B	2.1 J B	1.6 U J B	1.5 U J B
Styrene	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.27 J	0.59 J	ND (0.25)	ND (0.25)	ND (0.25)	0.25 J	ND (0.25)	0.42 J	ND (0.25)	0.3 J	ND (0.25)	ND (0.25)	ND (0.25)	0.37 J	ND (0.25)
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 J	0.66 J	0.62 J	0.63 J	0.54 J	0.69 J	0.61 J	0.41 J	0.64 J	0.56 J	0.47 J	0.52 J	0.5 J	0.52 J	0.48 J	0.65 J	0.53 J	0.53 J	0.47 J
1,2,4-Trichlorobenzene	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
1,1,1-Trichloroethane	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,1,2-Trichloroethane	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
1,2,4-Trimethylbenzene	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	0.36 J	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)
1,3,5-Trimethylbenzene	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
1,1,2,2-Tetrachloroethane	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Tetrachloroethene	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	0.47 U J	0.44 J	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	0.32 J	0.34 J	ND (0.27)	ND (0.27)	ND (0.27)	0.45 J	ND (0.27)	ND (0.27)	ND (0.27)
Toluene	0.85	0.87	2.3	0.83	4	3.6	0.8	ND (0.45)	5.2 J	6.1 J	3.1	2.3	ND (0.45)	0.71 J	ND (0.45)	0.85	0.75	1.7	0.81
trans-1,3-Dichloropropene	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Trichloroethene	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Trichlorofluoromethane	1.3	1.4	1.4	1.3 J B	1.5	2	1.4	0.91 J	1.5	1.4	1.4	1.6	1.1	1.3	1.2	1.6	1.2	1.6	1.2
Vinyl chloride	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
m-Xylene & p-Xylene	1.3	ND (0.52)	0.72 J	ND (0.52)	1.7	1.5	ND (0.52)	ND (0.52)	0.74 J	1.5	ND (0.52)	0.91	ND (0.52)	0.52 J	ND (0.52)	0.53 J	ND (0.52)	1.5	0.56 J
o-Xylene	0.35 J	ND (0.26)	ND (0.26)	ND (0.26)	0.63 J	0.53 J	ND (0.26)	ND (0.26)	ND (0.26)	0.31 J	ND (0.26)	0.33 J	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	0.55 J	ND (0.26)

Notes:

All concentrations in micrograms per cubic meter (µg/m^3)

B Analyte detected in laboratory blank   dup duplicate   J estimated result less than the reporting limit   ND not detected (reporting limit)

TABLE B-1
RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSIS FOR BASELINE SAMPLING PERIOD
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	STATION 1 Robertson Fire Protection Station 2, 3820 Taussig Road, Bridgeton, MO												
	08/21/14 (dup)	**08/28/14**	**09/04/14**	**09/04/14 (dup)**	**09/12/14**	**09/17/14**	**09/24/14**	**09/30/14**	**10/09/14**	**10/16/14**	**10/23/14**	**10/30/14**	**11/06/14**
Benzene	0.41 J	0.55 J	0.26 J	0.35 J	ND (0.18)	0.58 J	0.74	0.82	1.3	0.47 J	0.3 J	0.81	0.44 J
Benzyl chloride	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Bromomethane	ND (0.12)	0.15 J	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	0.13 J	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)
Carbon tetrachloride	0.34 J	0.46 J	0.51 J	0.53 J	0.39 J	0.46 J	0.6 J	0.64 J	0.51 J	0.46 J	0.49 J	0.51 J	0.51 J
Chlorobenzene	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chloroethane	0.11 J	0.12 J	ND (0.092)	ND (0.092)	0.11 J	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)
Chloroform	ND (0.19)	0.72 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	0.37 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Chloromethane	1.1	1.6	1.2	1.3	1.5	0.98 J	1.4	1.2	1.3	0.99 J	1.5	1.3	1.1
1,2-Dibromoethane (EDB)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,2-Dichlorobenzene	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
1,3-Dichlorobenzene	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
1,4-Dichlorobenzene	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Dichlorodifluoromethane	2.1	2.8	2.6	2.6	2.4	2.2	2.6	2.6	2.4	2.2	2.5	2.3	2.2
1,1-Dichloroethane	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethene	ND (0.13)	ND (0.13)	0.19 J	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2-Dichloroethene	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2-Dichloropropane	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
cis-1,3-Dichloropropene	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
Ethylbenzene	ND (0.3)	0.3 J	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.39 J	0.38 J	0.5 J	ND (0.3)	ND (0.3)	0.37 J	ND (0.3)
Hexachlorobutadiene	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)
Methylene Chloride	2 J B	1.1 U J B	1 U J	1.7 U J	0.85 U J	1.3 U J B	1.3 U J B	1.2 U J B	2.5 J+	0.91 U J B	1.8 J B	2 J B	1.5 U J B
Styrene	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.33 J	ND (0.25)	3.5	0.6 J	ND (0.25)	ND (0.25)	0.89	ND (0.25)
1,1,2-Trichloro-1,2,2-trifluoroethane	0.51 J	0.59 J	0.72 J	0.66 J	0.5 J	0.56 J	0.65 J	0.64 J	0.58 J	0.58 J	0.59 J	0.53 J	0.56 J
1,2,4-Trichlorobenzene	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
1,1,1-Trichloroethane	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,1,2-Trichloroethane	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
1,2,4-Trimethylbenzene	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	0.38 J	0.44 J	ND (0.31)	ND (0.31)	0.39 J	ND (0.31)
1,3,5-Trimethylbenzene	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
1,1,2,2-Tetrachloroethane	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Tetrachloroethene	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	0.45 J	0.32 J	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)
Toluene	0.95	1.4	ND (0.45)	0.75	ND (0.45)	1.5	4.5	2.4	6.7	0.97	ND (0.45)	2.5	0.71 J
trans-1,3-Dichloropropene	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Trichloroethene	ND (0.19)	0.39 J	ND (0.19)	ND (0.19)	ND (0.19)	0.21 J	0.37 J	ND (0.19)	0.3 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Trichlorofluoromethane	1.4	1.7	1.9	2.1	1.2	1.2	1.5	1.6	1.4	1.5	1.5	1.4	1.2
Vinyl chloride	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
m-Xylene & p-Xylene	0.64 J	0.94	ND (0.52)	ND (0.52)	ND (0.52)	0.82 J	1.1	1.2	1.5	ND (0.52)	ND (0.52)	1.2	ND (0.52)
o-Xylene	ND (0.26)	0.34 J	ND (0.26)	ND (0.26)	ND (0.26)	0.3 J	0.39 J	0.44 J	0.53 J	ND (0.26)	ND (0.26)	0.41 J	ND (0.26)

Notes:

All concentrations in micrograms per cubic meter ($\mu g/m^3$)

B Analyte detected in laboratory blank   dup duplicate   J estimated result less than the reporting limit   ND not detected (reporting limit)

TABLE B-2
RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSIS FOR BASELINE SAMPLING PERIOD
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	STATION 2 Pattonville Fire Department District, 13900 St. Charles Rock Road, Bridgeton, MO															
	05/08/14	05/15/14	05/23/14	05/30/14	06/06/14	06/06/14 (dup)	06/13/14	06/19/14	06/26/14	07/03/14	07/10/14	07/17/14	07/24/14	07/31/14	08/06/14	08/14/14	08/21/14
Benzene	0.32 J	0.22 J	0.3 J	0.51 J	0.75	0.63	0.22 J	0.36 J	0.45 J	ND (0.18)	0.21 J	0.36 J	0.21 J	0.35 J	0.39 J	0.83	0.3 J
Benzyl chloride	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Bromomethane	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	0.16 J	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)
Carbon tetrachloride	0.42 J	0.46 J	0.55 J	ND (0.24)	0.57 J	0.49 J	0.48 J	0.55 J	0.38 J	0.33 J	0.31 J	0.58 U J	0.37 J	0.39 J	0.37 J	0.43 J	0.43 J
Chlorobenzene	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chloroethane	ND (0.092)	ND (0.092)	0.11 U J B	ND (0.092)	ND (0.092)	ND (0.092)	0.23 J	0.54	0.17 J	0.098 J	ND (0.092)	ND (0.092)	ND (0.092)	0.12 J	ND (0.092)	ND (0.092)	ND (0.092)
Chloroform	ND (0.19)	ND (0.19)	ND (0.19)	0.23 J	0.41 J	0.42 J	ND (0.19)	0.32 J	0.39 J	ND (0.19)	0.29 J	0.52 J	ND (0.19)	0.22 J	ND (0.19)	0.21 J	ND (0.19)
Chloromethane	1.6	1 U J	1.3	1.8	1.9	1.7	3.1	2.4	2	0.93 J	0.86 J	1.5	1.1	1.5	1.2	1.3	1.2
1,2-Dibromoethane (EDB)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,2-Dichlorobenzene	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
1,3-Dichlorobenzene	ND (0.39)	ND (0.39)	ND (0.39)	0.51 J	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
1,4-Dichlorobenzene	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	0.75 J	ND (0.38)
Dichlorodifluoromethane	2.5	2.3	2.6	2.7	1.1	1.4	1	0.83 J	2	1.8	1.8	2.6	2.2	2.2	2.1	2.6	2.3
1,1-Dichloroethane	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethene	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2-Dichloroethene	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2-Dichloropropane	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
cis-1,3-Dichloropropene	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
Ethylbenzene	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.33 J	0.35 J	ND (0.3)	ND (0.3)	0.34 J	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.3 J	ND (0.3)
Hexachlorobutadiene	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	1.1 J	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)
Methylene Chloride	4.5	0.88 U J	1.2 U J B	1.1 J	1.2 J	1.2 J	0.97 J	5.1	2.5	0.66 J	0.71 U J	2.1 B	0.74 U J	1 U J B	1.2 U J B	2.7 J B	1.5 U J B
Styrene	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
1,1,2-Trichloro-1,2,2-trifluoroethane	0.67 J	0.62 J	0.67 J	0.59 J	0.7 J	0.72 J	0.65 J	0.64 J	0.5 J	0.51 J	0.46 J	0.59 J	0.47 J	0.58 J	0.52 J	0.59 J	0.58 J
1,2,4-Trichlorobenzene	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
1,1,1-Trichloroethane	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,1,2-Trichloroethane	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
1,2,4-Trimethylbenzene	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)
1,3,5-Trimethylbenzene	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
1,1,2,2-Tetrachloroethane	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Tetrachloroethene	ND (0.27)	ND (0.27)	ND (0.27)	86	ND (0.27)	ND (0.27)	ND (0.27)	1.7	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)
Toluene	0.79	0.78	1.4	2	1.9	2	1.1	9.8 J	3.1	ND (0.45)	0.71 J	1.6	0.73 J	1.2	1.3	2.1	2.8
trans-1,3-Dichloropropene	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Trichloroethene	ND (0.19)	ND (0.19)	ND (0.19)	0.33 J	0.6 J	0.59 J	ND (0.19)	0.44 J	0.5 J	ND (0.19)	ND (0.19)	0.33 J	1 U J	0.22 J	ND (0.19)	1.8	0.65 J
Trichlorofluoromethane	1.3	1.4	1.3 B	1.4	1.6	1.7	1.2	1.4	1.4	1.1 J	1 J	1.4	1.2	1.2	1.1	1.5	1.3
Vinyl chloride	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
m-Xylene & p-Xylene	0.53 J	ND (0.52)	ND (0.52)	ND (0.52)	0.98	1.1	ND (0.52)	ND (0.52)	1	ND (0.52)	ND (0.52)	0.54 J	ND (0.52)	0.54 J	ND (0.52)	0.98	ND (0.52)
o-Xylene	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	0.34 J	0.39 J	ND (0.26)	ND (0.26)	0.34 J	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	0.33 J	ND (0.26)

Notes:

All concentrations in micrograms per cubic meter ($\mu g/m^3$)

B Analyte detected in laboratory blank   dup duplicate   J estimated result less than the reporting limit   ND not detected (reporting limit)

TABLE B-2
RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSIS FOR BASELINE SAMPLING PERIOD
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	STATION 2 Pattonville Fire Department District, 13900 St. Charles Rock Road, Bridgeton, MO													
	08/28/14	08/28/14 (dup)	09/04/14	09/12/14	09/17/14	09/17/14 (dup)	09/24/14	09/24/14 (dup)	09/30/14	10/09/14	10/16/14	10/23/14	10/30/14	11/06/14
Benzene	0.54 J	0.52 J	0.42 J	0.19 J	0.67	0.79	0.6 J	0.75	0.28 J	0.98	0.45 J	0.8	0.85	0.5 J
Benzyl chloride	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Bromomethane	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	0.16 J	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)
Carbon tetrachloride	0.47 J	0.49 J	0.61 J	0.42 J	0.39 J	0.58 J	0.44 J	0.51 J	0.51 J	0.51 J	0.51 J	0.52 J	0.5 J	0.57 J
Chlorobenzene	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chloroethane	0.23 J	ND (0.092)	ND (0.092)	0.099 J	0.13 J	0.1 J	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)
Chloroform	0.41 J	0.43 J	ND (0.19)	ND (0.19)	0.19 J	0.37 J	ND (0.19)	0.19 J	ND (0.19)	0.27 J	ND (0.19)	ND (0.19)	0.19 J	ND (0.19)
Chloromethane	1.1	1.2	1.2	1.2	0.92 J	1.3	1.1	1.2	1.1	1 J	1.1	1.3	1.1	1.1
1,2-Dibromoethane (EDB)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,2-Dichlorobenzene	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
1,3-Dichlorobenzene	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
1,4-Dichlorobenzene	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Dichlorodifluoromethane	2.6	2.6	2.9	2.5	2.2	2.9	2.2	2.5	2.3	2.2	2.2	2.4	2.5	2.3
1,1-Dichloroethane	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethene	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2-Dichloroethene	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2-Dichloropropane	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
cis-1,3-Dichloropropene	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
Ethylbenzene	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.31 J	ND (0.3)	0.37 J	ND (0.3)	0.31 J	ND (0.3)	0.37 J	0.46 J	ND (0.3)
Hexachlorobutadiene	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)
Methylene Chloride	1.6 U J B	1.9 J B	7.6	1.4 U J	1.4 U J B	1.1 U J B	1.3 U J B	1.5 U J B	1.5 U J B	1.3 U J	5.3 J B	14 B	5.5 J B	5.1 J B
Styrene	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
1,1,2-Trichloro-1,2,2-trifluoroethane	0.61 J	0.58 J	0.64 J	0.5 J	0.69 J	0.65 J	0.56 J	0.63 J	0.56 J	0.72 J	0.56 J	0.54 J	0.58 J	0.56 J
1,2,4-Trichlorobenzene	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
1,1,1-Trichloroethane	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,1,2-Trichloroethane	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
1,2,4-Trimethylbenzene	ND (0.31)	ND (0.31)	0.37 J	ND (0.31)	ND (0.31)	0.33 J	ND (0.31)	ND (0.31)	ND (0.31)	0.37 J	ND (0.31)	ND (0.31)	0.44 J	ND (0.31)
1,3,5-Trimethylbenzene	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
1,1,2,2-Tetrachloroethane	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Tetrachloroethene	3.3	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)
Toluene	1.7	1.8	0.92	0.79	6.9	2.1	1.9	2.3	0.92	2.3	1.3	2	2.8	0.87
trans-1,3-Dichloropropene	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Trichloroethene	0.2 J	0.2 J	0.27 J	ND (0.19)	ND (0.19)	ND (0.19)	0.33 J	0.36 J	ND (0.19)	ND (0.19)	ND (0.19)	0.49 J	0.21 J	0.23 J
Trichlorofluoromethane	1.5	1.5	2	1.3	1.1	1.7	1.2	1.3	1.2	1.1	1.1	1.4	1.8	1.2
Vinyl chloride	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
m-Xylene & p-Xylene	0.84 J	0.81 J	0.89	ND (0.52)	ND (0.52)	0.87	0.88	1.1	ND (0.52)	0.94	0.71 J	1.2	1.4	ND (0.52)
o-Xylene	0.3 J	0.3 J	0.34 J	ND (0.26)	ND (0.26)	0.33 J	0.32 J	0.43 J	ND (0.26)	0.35 J	0.26 J	0.37 J	0.48 J	ND (0.26)

Notes:

All concentrations in micrograms per cubic meter ($\mu g/m^3$)

B Analyte detected in laboratory blank   dup duplicate   J estimated result less than the reporting limit   ND not detected (reporting limit)

TABLE B-3
RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSIS FOR BASELINE SAMPLING PERIOD
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	STATION 3 Pattonville Fire Department District Station 2, 3365 McKelvey Road, Bridgeton, MO														
	05/08/14	**05/15/14**	**05/23/14**	**05/30/14**	**06/06/14**	**06/13/14**	**06/19/14**	**06/26/14**	**07/03/14**	**07/10/14**	**07/17/14**	**07/24/14**	**07/31/14**	**08/06/14**	**08/14/14**
Benzene	0.35 J	0.32 J	0.35 J	0.64	0.74	ND (0.18)	0.29 J	0.43 J	ND (0.18)	0.25 J	0.46 J	0.5 J	0.37 J	0.41 J	0.96
Benzyl chloride	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Bromomethane	0.2 J	ND (0.12)	ND (0.12)	0.16 J	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	0.14 J	ND (0.12)	ND (0.12)	ND (0.12)
Carbon tetrachloride	0.67 J	0.42 J	0.58 J	0.49 J	0.44 J	0.34 J	0.45 J	0.33 J	0.35 J	0.31 J	0.51 U J	1.4	0.42 J	0.41 J	0.5 J
Chlorobenzene	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chloroethane	0.91	ND (0.092)	0.15 U J B	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	0.31 J	0.38 J	ND (0.092)	0.18 J	ND (0.092)
Chloroform	0.83 J	ND (0.19)	0.19 J	ND (0.19)	0.27 J	ND (0.19)	0.21 J	0.21 J	ND (0.19)	0.18 J	0.78 J	0.66 J	0.23 J	0.2 J	0.46 J
Chloromethane	5	1.2 J	2	2.1	1.7	1.3	1.2	1 J	0.95 J	0.87 J	2.2	2.1	0.86 J	1.4	1.6
1,2-Dibromoethane (EDB)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,2-Dichlorobenzene	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
1,3-Dichlorobenzene	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
1,4-Dichlorobenzene	0.51 J	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	0.76 J
Dichlorodifluoromethane	2.7	2.4	2.7	2.6	1.3	1.3	0.82 J	1.8	1.9	1.7	2.4	2.4	2.3	2.2	2.6
1,1-Dichloroethane	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethene	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2-Dichloroethene	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2-Dichloropropane	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
cis-1,3-Dichloropropene	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
Ethylbenzene	ND (0.3)	ND (0.3)	ND (0.3)	0.58 J	0.32 J	ND (0.3)	ND (0.3)	0.31 J	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.31 J
Hexachlorobutadiene	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)
Methylene Chloride	1.3 J	1.2 U J	1.2 U J B	0.75 J	0.98 J	0.52 J	0.46 J	0.67 J	0.66 J	0.76 U J	2.2 B	0.84 U J	1.2 U J B	1.5 U J B	4.7 J B
Styrene	ND (0.25)	ND (0.25)	ND (0.25)	0.29 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
1,1,2-Trichloro-1,2,2-trifluoroethane	0.61 J	0.59 J	0.72 J	0.53 J	0.65 J	0.47 J	0.6 J	0.44 J	0.49 J	0.44 J	0.6 J	0.56 J	0.58 J	0.49 J	0.61 J
1,2,4-Trichlorobenzene	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
1,1,1-Trichloroethane	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,1,2-Trichloroethane	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
1,2,4-Trimethylbenzene	ND (0.31)	ND (0.31)	ND (0.31)	0.32 J	0.34 J	ND (0.31)	ND (0.31)	0.34 J	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)
1,3,5-Trimethylbenzene	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
1,1,2,2-Tetrachloroethane	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Tetrachloroethene	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	0.31 J	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)
Toluene	1.1	0.88	1.7	3.2	2.1	ND (0.45)	0.98 U	1.6	ND (0.45)	0.69 J	2	ND (0.45)	1	0.89	2.4
trans-1,3-Dichloropropene	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Trichloroethene	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	0.44 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Trichlorofluoromethane	1.3	1.5	1.4 B	1.4	1.7	0.97 J	1.2	1 J	1.1 J	1.1 J	1.5	1.3	1.4	1.2	2.2
Vinyl chloride	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
m-Xylene & p-Xylene	ND (0.52)	ND (0.52)	0.54 J	1.7	0.91	ND (0.52)	ND (0.52)	0.95	ND (0.52)	ND (0.52)	0.71 J	ND (0.52)	0.58 J	ND (0.52)	0.91
o-Xylene	ND (0.26)	ND (0.26)	ND (0.26)	0.62 J	0.35 J	ND (0.26)	ND (0.26)	0.36 J	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	0.32 J

Notes:

All concentrations in micrograms per cubic meter (µg/m^3)

B Analyte detected in laboratory blank   dup duplicate   J estimated result less than the reporting limit   ND not detected (reporting limit)

TABLE B-3
RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSIS FOR BASELINE SAMPLING PERIOD
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	STATION 3 Pattonville Fire Department District Station 2, 3365 McKelvey Road, Bridgeton, MO											
	08/21/14	08/28/14	09/04/14	09/12/14	09/17/14	09/24/14	09/30/14	10/09/14	10/16/14	10/23/14	10/30/14	11/06/14
Benzene	0.3 J	0.55 J	0.36 J	ND (0.18)	0.71	0.65	0.54 J	1.1	0.54 J	0.66	0.81	0.46 J
Benzyl chloride	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Bromomethane	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	0.29 J J *	ND (0.12)
Carbon tetrachloride	0.34 J	0.47 J	0.5 J	0.36 J	0.52 J	0.47 J	0.45 J	0.47 J	0.56 J	0.52 J	0.55 J	0.46 J
Chlorobenzene	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chloroethane	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	0.14 J	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)
Chloroform	ND (0.19)	0.25 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	0.43 J	ND (0.19)	ND (0.19)
Chloromethane	1.2	1.3	1.1	0.84 J	1.5	1.1	1.1	1.4	1.2	1.9	1.2	1.3
1,2-Dibromoethane (EDB)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,2-Dichlorobenzene	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	1.1 J	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
1,3-Dichlorobenzene	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	0.45 J	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
1,4-Dichlorobenzene	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	0.71 J	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Dichlorodifluoromethane	2	2.6	2.5	2.2	2.4	2.2	2.2	2.2	2.5	2.4	2.3	2
1,1-Dichloroethane	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethene	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2-Dichloroethene	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2-Dichloropropane	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
cis-1,3-Dichloropropene	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
Ethylbenzene	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.34 J	0.3 J	ND (0.3)	0.51 J	ND (0.3)	ND (0.3)	0.31 J	ND (0.3)
Hexachlorobutadiene	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)
Methylene Chloride	1.1 U J B	1.3 U J B	1.1 U J	0.89 U J	2.4 J B	1.1 U J B	0.98 U J B	1.4 U J	1.5 U J B	1.9 J B	1.2 U J B	1.4 U J B
Styrene	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
1,1,2-Trichloro-1,2,2-trifluoroethane	0.47 J	0.51 J	0.55 J	0.45 J	0.56 J	0.55 J	0.55 J	0.54 J	0.57 J	0.58 J	0.51 J	0.56 J
1,2,4-Trichlorobenzene	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
1,1,1-Trichloroethane	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,1,2-Trichloroethane	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
1,2,4-Trimethylbenzene	ND (0.31)	ND (0.31)	0.38 J	ND (0.31)	0.41 J	ND (0.31)	ND (0.31)	0.8 J	ND (0.31)	ND (0.31)	0.33 J	ND (0.31)
1,3,5-Trimethylbenzene	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
1,1,2,2-Tetrachloroethane	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Tetrachloroethene	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	0.28 J	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)
Toluene	0.63 J	1.3	0.68 J	ND (0.45)	2.4	1.8	1.8	2.7	1.4	1.4	1.9	0.8
trans-1,3-Dichloropropene	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Trichloroethene	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	0.35 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Trichlorofluoromethane	1.2	1.5	1.7	1.2	1.6	1.1	1.3	1.2	1.6	1.2	1.2	1.1
Vinyl chloride	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
m-Xylene & p-Xylene	ND (0.52)	0.82 J	ND (0.52)	ND (0.52)	1	0.91	0.87	1.8	0.74 J	0.85 J	0.94	ND (0.52)
o-Xylene	ND (0.26)	0.31 J	ND (0.26)	ND (0.26)	0.36 J	0.37 J	0.32 J	0.67 J	ND (0.26)	0.31 J	0.33 J	ND (0.26)

Notes:

All concentrations in micrograms per cubic meter ($\mu g/m^3$)

B Analyte detected in laboratory blank dup duplicate J estimated result less than the reporting limit ND not detected (reporting limit)

TABLE B-4
RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSIS FOR BASELINE SAMPLING PERIOD
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	STATION 4 Spanish Village Park, 12827 Spanish Village Drive, Bridgeton, MO														
	05/08/14	05/08/14 (dup)	05/15/14	05/23/14	05/23/14 (dup)	05/30/14	05/30/14 (dup)	06/06/14	06/13/14	06/19/14	06/26/14	07/03/14	07/03/14 (dup)	07/10/14	07/17/14
Benzene	0.29 J	0.28 J	0.28 J	0.28 J	0.26 J	0.55 J	0.55 J	0.72	0.44 J	0.33 J	0.44 J	ND (0.18)	ND (0.18)	0.37 J	0.44 J
Benzyl chloride	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Bromomethane	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	0.14 J	ND (0.12)	ND (0.12)	0.37 J	ND (0.12)	ND (0.12)
Carbon tetrachloride	0.31 J	0.38 J	0.46 J	0.41 J	0.41 J	0.46 J	0.48 J	0.48 J	0.67 J	0.48 J	0.37 J	0.4 J	0.33 J	0.37 J	0.54 U J
Chlorobenzene	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chloroethane	0.13 J	ND (0.092)	ND (0.092)	ND (0.092)	0.18 U J B	ND (0.092)	ND (0.092)	0.14 J	0.13 J	ND (0.092)	ND (0.092)	ND (0.092)	0.17 J	ND (0.092)	ND (0.092)
Chloroform	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	0.31 J	0.21 J	ND (0.19)	0.22 J	ND (0.19)	0.6 J	0.22 J	0.22 J
Chloromethane	1.7	1.4	1.3 J	1.2	1.4	1.5	1.9	1.7	2.7	1.4	1 J	0.99 J	2	0.89 J	1.3
1,2-Dibromoethane (EDB)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,2-Dichlorobenzene	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
1,3-Dichlorobenzene	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
1,4-Dichlorobenzene	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	0.44 J	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Dichlorodifluoromethane	1.8	2.1	1.8	2.2	2.3	2.6	2.5	1.1	1.8	1.1	1.9	2.1	1.7	1.9	2.4
1,1-Dichloroethane	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	0.4 J	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethene	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2-Dichloroethene	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2-Dichloropropane	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
cis-1,3-Dichloropropene	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
Ethylbenzene	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.4 J	0.59 J	0.41 J	0.3 J	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)
Hexachlorobutadiene	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)
Methylene Chloride	0.95 J	0.77 J	1 U J	1.2 U J B	1.1 U J B	0.74 J	0.76 J	1.2 J	1.9	0.66 J	0.79 J	0.62 J	0.61 J	0.91 U J	1.9 B
Styrene	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.41 J	0.48 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
1,1,2-Trichloro-1,2,2-trifluoroethane	0.65 J	0.58 J	0.62 J	0.58 J	0.58 J	0.58 J	0.58 J	0.69 J	0.87 J	0.66 J	0.48 J	0.57 J	0.45 J	0.45 J	0.54 J
1,2,4-Trichlorobenzene	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
1,1,1-Trichloroethane	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,1,2-Trichloroethane	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
1,2,4-Trimethylbenzene	ND (0.31)	0.5 J	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	0.32 J	0.35 J	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)
1,3,5-Trimethylbenzene	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
1,1,2,2-Tetrachloroethane	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Tetrachloroethene	ND (0.27)	ND (0.27)	ND (0.27)	0.54 J	ND (0.27)	ND (0.27)	ND (0.27)	0.36 J	0.57 J	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)
Toluene	0.8	1.1	0.61 J	0.95	0.8	2.9	3	2.9	0.97	1.4 U	1.9	ND (0.45)	ND (0.45)	0.96	1.7
trans-1,3-Dichloropropene	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Trichloroethene	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Trichlorofluoromethane	1.4	1.1	1.7	1.2 J B	1.2 J B	1.4	1.4	1.8	2.3	2	1.4	1.1	0.97 J	1.1	1.7
Vinyl chloride	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
m-Xylene & p-Xylene	ND (0.52)	1	ND (0.52)	ND (0.52)	ND (0.52)	1.2	1.8	1.2	0.67 J	ND (0.52)	0.82 J	ND (0.52)	ND (0.52)	0.68 J	0.72 J
o-Xylene	ND (0.26)	0.49 J	ND (0.26)	ND (0.26)	ND (0.26)	0.43 J	0.63 J	0.44 J	ND (0.26)	ND (0.26)	0.27 J	ND (0.26)	ND (0.26)	ND (0.26)	0.26 J

Notes:

All concentrations in micrograms per cubic meter ($\mu g/m^3$)

B Analyte detected in laboratory blank; dup duplicate; J estimated result less than the reporting limit; ND not detected (reporting limit)

TABLE B-4
RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSIS FOR BASELINE SAMPLING PERIOD
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	STATION 4 Spanish Village Park, 12827 Spanish Village Drive, Bridgeton, MO														
	07/17/14 (dup)	**07/24/14**	**07/24/14 (dup)**	**07/31/14**	**07/31/14 (dup)**	**08/06/14**	**08/06/14 (dup)**	**08/14/14**	**08/14/14 (dup)**	**08/21/14**	**08/28/14**	**09/04/14**	**09/12/14**	**09/12/14 (dup)**	**09/17/14**
Benzene	0.42 J	0.27 J	0.26 J	0.35 J	0.21 J	0.42 J	0.39 J	0.8	0.77	0.37 J	0.5 J	0.41 J	ND (0.18)	ND (0.18)	0.6 J
Benzyl chloride	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Bromomethane	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	0.22 J	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)
Carbon tetrachloride	0.84 U J	0.35 J	0.36 J	0.43 J	0.45 J	0.38 J	0.39 J	0.43 J	0.45 J	0.29 J	0.48 J	0.52 J	0.58 J	0.37 J	0.49 J
Chlorobenzene	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chloroethane	ND (0.092)	0.13 J	0.17 J	ND (0.092)	ND (0.092)	0.18 J	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)
Chloroform	0.23 J	0.19 J	ND (0.19)	0.25 J	0.24 J	0.31 J	0.31 J	0.28 J	0.29 J	ND (0.19)	0.27 J	ND (0.19)	ND (0.19)	0.19 J	ND (0.19)
Chloromethane	1.7	1 J	0.99 J	0.93 J	1	1.6	1.2	1.3	1 J	1.1	1.1	1.2	1 J	0.93 J	1.1
1,2-Dibromoethane (EDB)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,2-Dichlorobenzene	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
1,3-Dichlorobenzene	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
1,4-Dichlorobenzene	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	0.4 J	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Dichlorodifluoromethane	2.4	2.1	2.1	2.3	2.4	2.2	2.2	2.5	2.5	2.1	2.7	2.6	2.4	2.3	2.4
1,1-Dichloroethane	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethene	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2-Dichloroethene	ND (0.24)	ND (0.24)	0.41 J	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2-Dichloropropane	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
cis-1,3-Dichloropropene	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
Ethylbenzene	ND (0.3)	0.37 J	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.33 J	0.31 J	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)
Hexachlorobutadiene	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)
Methylene Chloride	2.5 B	1.2 U J	1.5 J	1.9 J B	2.1 J B	1.7 U J B	1.5 U J B	2.3 J B	2.6 J B	1.1 U J B	1.1 U J B	2 J+	1.1 U J	1 U J	1.4 U J B
Styrene	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
1,1,2-Trichloro-1,2,2-trifluoroethane	0.6 J	0.58 J	0.5 J	0.54 J	0.63 J	0.51 J	0.51 J	0.57 J	0.59 J	0.47 J	0.6 J	0.61 J	0.47 J	0.46 J	0.53 J
1,2,4-Trichlorobenzene	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
1,1,1-Trichloroethane	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,1,2-Trichloroethane	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
1,2,4-Trimethylbenzene	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	0.4 J	ND (0.31)	ND (0.31)	ND (0.31)
1,3,5-Trimethylbenzene	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
1,1,2,2-Tetrachloroethane	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Tetrachloroethene	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)
Toluene	1.6	0.48 J	ND (0.45)	1.2	ND (0.45)	0.99	0.95	2.1	2	0.84	1.3	1.2	ND (0.45)	ND (0.45)	1.7
trans-1,3-Dichloropropene	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Trichloroethene	ND (0.19)	2.1 J	1.6 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Trichlorofluoromethane	1.7	1.1	1.2	1.5	1.6	1.2	1.2	2.2	2.1	1.3	1.4	1.9	1.3	1.2	1.3
Vinyl chloride	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
m-Xylene & p-Xylene	0.63 J	0.82 J	ND (0.52)	0.7 J	ND (0.52)	ND (0.52)	ND (0.52)	0.95	0.89	ND (0.52)	0.88	0.69 J	ND (0.52)	ND (0.52)	0.76 J
o-Xylene	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	0.35 J	0.32 J	ND (0.26)	0.29 J	0.28 J	ND (0.26)	ND (0.26)	0.27 J

Notes:

All concentrations in micrograms per cubic meter ($\mu g/m^3$)

B Analyte detected in laboratory blank   dup duplicate   J estimated result less than the reporting limit   ND not detected (reporting limit)

TABLE B-4
RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSIS FOR BASELINE SAMPLING PERIOD
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	STATION 4 Spanish Village Park, 12827 Spanish Village Drive, Bridgeton, MO											
	09/24/14	09/30/14	09/30/14 (dup)	10/09/14	10/09/14 (dup)	10/16/14	10/16/14 (dup)	10/23/14	10/23/14 (dup)	10/30/14	10/30/14 (dup)	11/06/14
Benzene	0.38 J	0.31 J	0.48 J	1.1	1.3	0.48 J	0.52 J	0.61 J	0.69	0.74	0.67	0.44 J
Benzyl chloride	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Bromomethane	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	0.23 J	ND (0.12)	ND (0.12)	0.18 J J *	ND (0.12)	ND (0.12)
Carbon tetrachloride	0.45 J	0.56 J	0.46 J	0.43 J	0.55 J	0.54 J	0.6 J	0.49 J	0.46 J	ND (0.24)	0.47 J	0.52 J
Chlorobenzene	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chloroethane	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	0.19 J	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)
Chloroform	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	0.21 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Chloromethane	0.91 J	1.2	1.3	0.95 J	1.4	0.98 J	1.3	1.3	1.6	1.3	1.3	1.1
1,2-Dibromoethane (EDB)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,2-Dichlorobenzene	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
1,3-Dichlorobenzene	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
1,4-Dichlorobenzene	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	0.92 J	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Dichlorodifluoromethane	2.2	2.4	2.2	2.1	2.4	2.5	2.7	2.5	2.6	2.4	2.5	2.4
1,1-Dichloroethane	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethene	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2-Dichloroethene	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2-Dichloropropane	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
cis-1,3-Dichloropropene	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
Ethylbenzene	ND (0.3)	ND (0.3)	0.3 J	0.38 J	0.41 J	0.32 J	ND (0.3)	ND (0.3)	0.32 J	0.36 J	0.31 J	ND (0.3)
Hexachlorobutadiene	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)
Methylene Chloride	1.4 U J B	0.99 U J B	1.3 U J B	1.1 U J	1.2 U J	2.5 J B	1.1 U J B	1.6 U J B	2.9 J B	1.3 U J B	1.6 U J B	1.4 U J B
Styrene	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
1,1,2-Trichloro-1,2,2-trifluoroethane	0.55 J	0.59 J	0.58 J	0.5 J	0.64 J	0.64 J	0.69 J	0.59 J	0.61 J	0.55 J	0.58 J	0.66 J
1,2,4-Trichlorobenzene	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
1,1,1-Trichloroethane	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,1,2-Trichloroethane	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
1,2,4-Trimethylbenzene	ND (0.31)	0.44 J	ND (0.31)	0.41 J	0.44 J	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	0.38 J	0.33 J	ND (0.31)
1,3,5-Trimethylbenzene	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
1,1,2,2-Tetrachloroethane	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Tetrachloroethene	ND (0.27)	ND (0.27)	ND (0.27)	0.77 J	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)
Toluene	0.93	3.4	3.4	2.1	2.4	1.7	1.2	1.5	1.7	2.1	1.9	0.84
trans-1,3-Dichloropropene	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Trichloroethene	ND (0.19)	ND (0.19)	ND (0.19)	0.43 J	0.54 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Trichlorofluoromethane	1.2	1.3	1.6	1.1 J	1.3	2	2.1	1.3	1.6	1.8	1.8	1.3
Vinyl chloride	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
m-Xylene & p-Xylene	ND (0.52)	0.8 J	0.75 J	1.2	1.3	1	0.58 J	0.9	0.99	1.1	0.96	ND (0.52)
o-Xylene	ND (0.26)	0.36 J	0.27 J	0.44 J	0.49 J	0.39 J	ND (0.26)	0.33 J	0.35 J	0.39 J	0.37 J	ND (0.26)

Notes:

All concentrations in micrograms per cubic meter (μg/m^3)

B Analyte detected in laboratory blank   dup duplicate   J estimated result less than the reporting limit   ND not detected (reporting limit)

TABLE B-5
RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSIS FOR BASELINE SAMPLING PERIOD
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	STATION 5 St. Charles Fire Department Station #2, 1550 S. Main Street, St. Charles, MO													
	05/08/14	05/15/14	05/23/14	05/30/14	06/06/14	06/13/14	06/19/14	06/26/14	07/03/14	07/10/14	07/17/14	07/24/14	07/31/14	08/06/14
Benzene	0.31 J	0.31 J	0.28 J	0.58 J	0.61 J	0.26 J	0.27 J	0.44 J	0.2 J	0.34 J	0.43 J	0.27 J	0.45 J	0.56 J
Benzyl chloride	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Bromomethane	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)
Carbon tetrachloride	0.44 J	0.41 J	0.44 J	0.46 J	0.33 J	0.38 J	0.51 J	0.39 J	0.4 J	0.38 J	0.46 U J	0.35 J	0.4 J	0.4 J
Chlorobenzene	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chloroethane	0.14 J	ND (0.092)	0.096 U J B	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	0.11 J	ND (0.092)	ND (0.092)	ND (0.092)	0.32 J	ND (0.092)	ND (0.092)
Chloroform	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	0.26 J	ND (0.19)	ND (0.19)	0.36 J	ND (0.19)	0.21 J	0.22 J	ND (0.19)	0.2 J	ND (0.19)
Chloromethane	1.8	1.2 J	1.2	1.4	1.3	1.7	1.3	1.3	0.9 J	0.9 J	1.1	1.7	0.89 J	1.9
1,2-Dibromoethane (EDB)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,2-Dichlorobenzene	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
1,3-Dichlorobenzene	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
1,4-Dichlorobenzene	ND (0.38)	0.51 J	ND (0.38)	0.39 J	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Dichlorodifluoromethane	2.1	1.8	2.3	2.7	0.98	0.79 J	0.93 J	2.1	2.1	2	2.4	2.1	2.3	2.5
1,1-Dichloroethane	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethene	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2-Dichloroethene	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2-Dichloropropane	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
cis-1,3-Dichloropropene	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
Ethylbenzene	ND (0.3)	ND (0.3)	ND (0.3)	0.77 J	0.33 J	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.33 J	ND (0.3)
Hexachlorobutadiene	ND (0.83)	1.1 J	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)
Methylene Chloride	1.9	2 J	1.1 U J B	0.91 J	1.2 J	0.57 J	0.66 J	0.65 J	1.4 J	0.82 U J	1.6 U J B	0.73 U J	1.4 U J B	1.3 U J B
Styrene	ND (0.25)	ND (0.25)	ND (0.25)	0.27 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.55 J	ND (0.25)
1,1,2-Trichloro-1,2,2-trifluoroethane	0.64 J	0.59 J	0.58 J	0.57 J	0.54 J	0.53 J	0.66 J	0.53 J	0.54 J	0.47 J	0.55 J	0.5 J	0.53 J	0.57 J
1,2,4-Trichlorobenzene	ND (0.73)	0.96 J	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
1,1,1-Trichloroethane	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,1,2-Trichloroethane	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
1,2,4-Trimethylbenzene	ND (0.31)	ND (0.31)	ND (0.31)	0.47 J	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)
1,3,5-Trimethylbenzene	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
1,1,2,2-Tetrachloroethane	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Tetrachloroethene	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	19	ND (0.27)	2	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)
Toluene	1.3	1.4	1	5.4	2.7	15	1.5 U	2.1	17	1.9	2.2	0.99	1.4	1.4
trans-1,3-Dichloropropene	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Trichloroethene	ND (0.19)	ND (0.19)	ND (0.19)	0.22 J	ND (0.19)	0.24 J	ND (0.19)	0.29 J	ND (0.19)	ND (0.19)	0.24 J	ND (0.19)	0.27 J	ND (0.19)
Trichlorofluoromethane	1.5	1.5	1.2 J B	1.6	1.3	1.1 J	1.4	1.2	1.2	1.1 J	1.4	1.1	1.3	1.3
Vinyl chloride	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
m-Xylene & p-Xylene	0.77 J	ND (0.52)	ND (0.52)	2.3	0.98	ND (0.52)	ND (0.52)	0.91	ND (0.52)	0.59 J	0.76 J	ND (0.52)	0.79 J	0.68 J
o-Xylene	ND (0.26)	ND (0.26)	ND (0.26)	0.78 J	0.36 J	ND (0.26)	ND (0.26)	0.28 J	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	0.28 J	ND (0.26)

Notes:

All concentrations in micrograms per cubic meter ($\mu g/m^3$)

B Analyte detected in laboratory blank   dup duplicate   J estimated result less than the reporting limit   ND not detected (reporting limit)

TABLE B-5
RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSIS FOR BASELINE SAMPLING PERIOD
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	STATION 5St. Charles Fire Department Station #2, 1550 S. Main Street, St. Charles, MO										
	08/14/14	08/21/14	08/28/14	09/04/14	09/12/14	09/17/14	10/09/14	10/16/14	10/23/14	10/30/14	11/06/14
Benzene	0.97	0.33 J	0.41 J	0.27 J	0.24 J	0.69	1.2	0.4 J	0.76	0.78	0.38 J
Benzyl chloride	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)
Bromomethane	ND (0.12)	0.15 J	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)
Carbon tetrachloride	0.42 J	0.39 J	0.48 J	0.48 J	0.49 J	0.55 J	0.48 J	0.48 J	0.51 J	0.54 J	0.45 J
Chlorobenzene	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chloroethane	0.13 J	0.15 J	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)	ND (0.092)
Chloroform	1	ND (0.19)	0.2 J	ND (0.19)	ND (0.19)	ND (0.19)	0.19 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Chloromethane	1.3	1.7	1.2	1	1.2	1.4	1.1	0.93 J	1.4	1.3	1.1
1,2-Dibromoethane (EDB)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,2-Dichlorobenzene	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
1,3-Dichlorobenzene	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
1,4-Dichlorobenzene	0.42 J	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Dichlorodifluoromethane	2.3	2.3	2.6	2.8	2.8	2.7	2.1	2.2	2.5	2.5	2.1
1,1-Dichloroethane	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethene	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2-Dichloroethene	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2-Dichloropropane	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
cis-1,3-Dichloropropene	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
Ethylbenzene	0.35 J	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.32 J	0.6 J	ND (0.3)	0.37 J	0.44 J	ND (0.3)
Hexachlorobutadiene	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)	ND (0.83)
Methylene Chloride	1.9 J B	1.5 U J B	2.2 J B	1 U J	1.5 U J	1.7 U J B	1 U J	1.3 U J B	2.4 J B	1.2 U J B	1.7 J B
Styrene	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
1,1,2-Trichloro-1,2,2-trifluoroethane	0.54 J	0.53 J	0.58 J	0.57 J	0.55 J	0.59 J	0.52 J	0.56 J	0.58 J	0.56 J	0.52 J
1,2,4-Trichlorobenzene	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
1,1,1-Trichloroethane	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,1,2-Trichloroethane	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
1,2,4-Trimethylbenzene	0.45 J	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	0.61 J	ND (0.31)	0.35 J	0.48 J	ND (0.31)
1,3,5-Trimethylbenzene	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
1,1,2,2-Tetrachloroethane	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Tetrachloroethene	ND (0.27)	ND (0.27)	ND (0.27)	0.38 J	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	0.39 J	ND (0.27)	ND (0.27)
Toluene	3	0.8	1.6	ND (0.45)	0.84	1.6	2.8	0.99	2.7	3.4	0.85
trans-1,3-Dichloropropene	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Trichloroethene	ND (0.19)	ND (0.19)	1.6	ND (0.19)	ND (0.19)	0.44 J	0.69 J	1.7	ND (0.19)	ND (0.19)	ND (0.19)
Trichlorofluoromethane	1.3	1.3	1.7	1.6	1.5	1.6	1.1	1.2	1.5	1.3	1.1 J
Vinyl chloride	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
m-Xylene & p-Xylene	1.1	ND (0.52)	0.79 J	ND (0.52)	ND (0.52)	0.94	1.9	0.56 J	1.2	1.4	ND (0.52)
o-Xylene	0.38 J	ND (0.26)	0.3 J	ND (0.26)	ND (0.26)	0.32 J	0.63 J	ND (0.26)	0.43 J	0.5 J	ND (0.26)

Notes:

All concentrations in micrograms per cubic meter ($\mu g/m^3$)

B Analyte detected in laboratory blank dup duplicate J estimated result less than the reporting limit ND not detected (reporting limit)

APPENDIX C

FREQUENCY OF DETECTION SUMMARY AND STATISTICAL ANALYSIS RESULTS

TABLE C-1
OCCURRENCES OF VOLATILE ORGANIC COMPOUND DETECTION
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound	**Number of Detections / Number of Samples**					
	Station 1	Station 2	Station 3	Station 4	Station 5	Total
Benzene	24/26	25/26	23/26	25/27	25/25	122/130
Benzyl chloride	0/26	0/26	0/26	0/27	0/25	0/130
Bromomethane	2/26	2/26	3/26	5/27	1/25	13/130
Carbon tetrachloride	26/26	24/26	25/26	26/27	24/25	125/130
Chlorobenzene	0/26	0/26	0/26	0/27	0/25	0/130
Chloroethane	8/26	8/26	5/26	7/27	5/25	33/130
Chloroform	11/26	12/26	13/26	13/27	8/25	57/130
Chloromethane	26/26	25/26	26/26	27/27	25/25	129/130
1,2-Dibromoethane (EDB)	0/26	0/26	0/26	0/27	0/25	0/130
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)	0/26	0/26	0/26	0/27	0/25	0/130
1,2-Dichlorobenzene	0/26	0/26	1/26	0/27	0/25	1/130
1,3-Dichlorobenzene	0/26	1/26	1/26	0/27	0/25	2/130
1,4-Dichlorobenzene	1/26	1/26	3/26	3/27	3/25	11/130
Dichlorodifluoromethane	26/26	26/26	26/26	27/27	25/25	130/130
1,1-Dichloroethane	0/26	0/26	0/26	1/27	0/25	1/130
1,2-Dichloroethane	0/26	0/26	0/26	0/27	0/25	0/130
1,1-Dichloroethene	1/26	0/26	0/26	0/27	0/25	1/130
cis -1,2-Dichloroethene	0/26	0/26	0/26	1/27	0/25	1/130
1,2-Dichloropropane	0/26	0/26	0/26	0/27	0/25	0/130
cis -1,3-Dichloropropene	0/26	0/26	0/26	0/27	0/25	0/130
Ethylbenzene	9/26	7/26	7/26	10/27	8/25	41/130
Hexachlorobutadiene	0/26	1/26	0/26	0/27	1/25	2/130
Methylene Chloride	14/26	14/26	11/26	14/27	12/25	65/130
Styrene	9/26	0/26	1/26	1/27	2/25	13/130
1,1,2-Trichloro-1,2,2-trifluoroethane	26/26	26/26	26/26	27/27	25/25	130/130
1,2,4-Trichlorobenzene	0/26	0/26	0/26	0/27	1/25	1/130
1,1,1-Trichloroethane (methyl chloroform)	0/26	0/26	0/26	0/27	0/25	0/130
1,1,2-Trichloroethane	0/26	0/26	0/26	0/27	0/25	0/130
1,2,4-Trimethylbenzene	3/26	3/26	6/26	7/27	5/25	24/130
1,3,5-Trimethylbenzene	0/26	0/26	0/26	0/27	0/25	0/130
1,1,2,2-Tetrachloroethane	0/26	0/26	0/26	0/27	0/25	0/130
Tetrachloroethene	5/26	3/26	2/26	4/27	4/25	18/130
Toluene	22/26	25/26	21/26	24/27	23/25	115/130
trans-1,3-dichloropropene	0/26	0/26	0/26	0/27	0/25	0/130
Trichloroethene	4/26	13/26	2/26	2/27	9/25	30/130
Trichlorofluoromethane	26/26	26/26	26/26	27/27	25/25	130/130
Vinyl chloride	0/26	0/26	0/26	0/27	0/25	0/130
m-Xylene & p-Xylene	16/26	13/26	14/26	18/27	15/25	76/130
o-Xylene	11/26	10/26	10/26	14/27	10/25	55/130

Notes:
Detection of compound in either or both the sample or its duplicate was counted as one detect.
Results coded "UJ", "UJB", or "UB" were counted as not detected, in accordance with EPA data validation guidelines.

TABLE C-2
COMPARISON OF VOLATILE ORGANIC COMPOUND RESULTS AT OFF-SITE AIR MONITORING STATIONS
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound[1]	Frequency of Detection[2]						Results of Statistical Comparison Between Monitoring Stations[3]	
	Station 1	Station 2	Station 3	Station 4	Station 5	Total	Comparison Between Off Site WLLS Stations (Stations 1-5)[4]	Comparison Between Off Site WLLS Stations (Stations 1-5) and the St. Louis NATTS (2013)[5]
Dichlorodifluoromethane	100%	100%	100%	100%	100%	100%	No significant difference (*p-value* = 0.9468)	NATTS tended to have higher measurements than Stations 1-5 (*p-value* = 0.0003398)
1,1,2-Trichloro-1,2,2-trifluoroethane	100%	100%	100%	100%	100%	100%	No significant difference (*p-value* = 0.06478)	NATTS tended to have higher measurements than Stations 1, 3, 4, and 5 (*p-value* = 1.552e-05)
Trichlorofluoromethane	100%	100%	100%	100%	100%	100%	No significant difference (*p-value* = 0.2497)	NATTS tended to have higher measurements than Stations 2, 3, and 5 (*p-value* = 0.006513)
Chloromethane	100%	96% [B]	100%	100%	100%	99%[B]	No significant difference (*p-value* = 0.8989)	Stations 1, 2, and 3 tended to have higher measurements than the St. Louis NATTS (*p-value* = 0.004873)
Carbon tetrachloride	100%	92%	96%	96%	96%	96%	No significant difference (*p-value* = 0.7499)	St. Louis NATTS tended to have higher measurements than Stations 1-5 (*p-value* < 2.2e-16)
Benzene	92%	96%	88%	93%	100%	94%	No significant difference (*p-value* = 0.9524)	St. Louis NATTS tended to have higher measurements than Stations 1, 2, 4, and 5 (*p-value* = 0.0006727)
Toluene	85%	96%	81%	89%	92%	88%	No significant difference (*p-value* = 0.2085)	No significant difference (*p-value* = 0.1346)
m-Xylene & p-Xylene	62%	50%	54%	67%	60%	58%	No significant difference (*p-value* = 0.9525)	No significant difference (*p-value* = 0.3679)
Methylene chloride	54%[B]	54%[B]	42%[B]	52%[B]	48%[B]	50%[B]	Difference detected among Stations 1-5 (*p-value* = 0.03373), but a post-hoc analysis was inconclusive regarding a station-to-station comparison, and distributions appear similar on box plots.	Difference detected among Stations 1-5 and the St. Louis NATTS station (*p-value* = 0.002502). A post-hoc analysis indicated Station 2 tended to have higher measurements than the St. Louis NATTS.
Chloroform	42%	46%	50%	48%	32%	44%	No significant difference (*p-value* = 0.5066)	No significant difference (*p-value* = 0.6546)
o-Xylene	42%	38%	38%	52%	40%	42%	No significant difference (*p-value* = 0.9906)	No significant difference (*p-value* = 0.9295)
Ethylbenzene	35%	27%	27%	37%	32%	32%	No significant difference (*p-value* = 0.9067)	No significant difference (*p-value* = 0.3992)
Chloroethane	31%	31%	19%	26%	20%	25%	No significant difference (*p-value* = 0.9154)	Difference detected among Stations 1-5 and the St. Louis NATTS station (*p-value* = 0.0218), but a post-hoc analysis was inconclusive regarding a St. Louis NATTS (as control) to Station 1-5 (as treatments) comparison. The box plots suggest Stations 1 5 tended to have higher measurements than the St. Louis NATTS.
Trichloroethene	15%	50%	7.7%	7.4%	36%	23%	Station 2 tended to have higher measurements than Stations 1, 3, and 4 (*p-value* = 7.103e-06)	Stations 2 and 5 tended to have higher measurements than the St. Louis NATTS (*p-value* = 1.268e-10)
1,2,4-Trimethylbenzene	12%	12%	23%	26%	20%	18%	No significant difference (*p-value* = 0.7502)	No significant difference (*p-value* = 0.8278)

TABLE C-2
COMPARISON OF VOLATILE ORGANIC COMPOUND RESULTS AT OFF-SITE AIR MONITORING STATIONS
WEST LAKE LANDFILL, BRIDGETON, MISSOURI

Volatile Organic Compound[1]	**Frequency of Detection**[2]						**Results of Statistical Comparison Between Monitoring Stations**[3]	
	Station 1	Station 2	Station 3	Station 4	Station 5	Total	Comparison Between Off Site WLLS Stations (Stations 1-5)[4]	Comparison Between Off Site WLLS Stations (Stations 1-5) and the St. Louis NATTS (2013)[5]
Styrene	35%	0%	3.8%	3.7%	8.0%	10%	Station 1 tended to have higher measurements than the other stations (*p-value* = 3.56e-05)	Difference detected among Stations 1-5 and the St. Louis NATTS (*p-value* = 1.928e-06), but a post-hoc analysis was inconclusive regarding a St. Louis NATTS (as control) to Station 1-5 (as treatments) comparison. The box plots suggest Station 1 tended to have higher measurements than the St. Louis NATTS.
Tetrachloroethene	19%	12%	8%	15%	16%	14%	No significant difference (*p-value* = 0.4579)	No significant difference (*p-value* = 0.446)
Bromomethane	7.7%	7.7%	12%	19%	4.0%	10%	No significant difference (*p-value* = 0.5229)	No significant difference (*p-value* = 0.1781)
1,4-Dichlorobenzene	3.8%	3.8%	11.5%	11.1%	12.0%	8.5%	No significant difference (*p-value* = 0.7487)	No significant difference (*p-value* = 0.3791)
1,3-Dichlorobenzene	0.0%	3.8%	3.8%	0.0%	0.0%	1.5%	*Less than 2% detects*[6]	*Less than 2% detects*[6]
Hexachlorobutadiene	0.0%	3.8%	0.0%	0.0%	4.0%	1.5%	*Less than 2% detects*[6]	*Less than 2% detects*[6]
1,2-Dichlorobenzene	0.0%	0.0%	3.8%	0.0%	0.0%	0.8%	*Less than 2% detects*[6]	*Less than 2% detects*[6]
1,1-Dichloroethane	0.0%	0.0%	0.0%	3.7%	0.0%	0.8%	*Less than 2% detects*[6]	*Less than 2% detects*[6]
1,1-Dichloroethene	3.8%	0.0%	0.0%	0.0%	0.0%	0.8%	*Less than 2% detects*[6]	*Less than 2% detects*[6]
cis-1,2-Dichloroethene	0.0%	0.0%	0.0%	3.7%	0.0%	0.8%	*Less than 2% detects*[6]	*Less than 2% detects*[6]
1,2,4-Trichlorobenzene	0.0%	0.0%	0.0%	0.0%	4.0%	0.8%	*Less than 2% detects*[6]	*Less than 2% detects*[6]

Notes:

[1] Volatile organic compounds listed in descending rank according to overall percent detection. VOCs with no detections at any of the off-site WLLS stations are not shown.

[2] Unless indicated, VOCs detected less than 100 percent of the time were affected by one or more "non-detect" results (VOCs not detected above the laboratory detection limit). Percentages marked "B" indicate the frequency of detection was affected by results coded "UJB" or "UB" by the data validator (indicating a result was similar to the concentration detected in the laboratory blank); these results are not counted as detected. Detection of a compound in either or both the sample and its duplicate was counted as one detect.

[3] Results from the statistical software package R version 3.1.2 using the non-parametric Kruskal-Wallis test to compare the mean/median characteristics of the compounds among the monitoring stations. A p-value equal to or less than 0.05 suggests significant differences in mean/median characteristics among the stations. A p-value of greater than 0.05 suggests that the mean/median characteristics among the stations are comparable.

[4] Shading in this column indicates a difference was detected.

[5] Shading in this column indicates one or more off-site WLLS stations (Stations 1-5) tended to have measurements higher than the St. Louis NATTS.

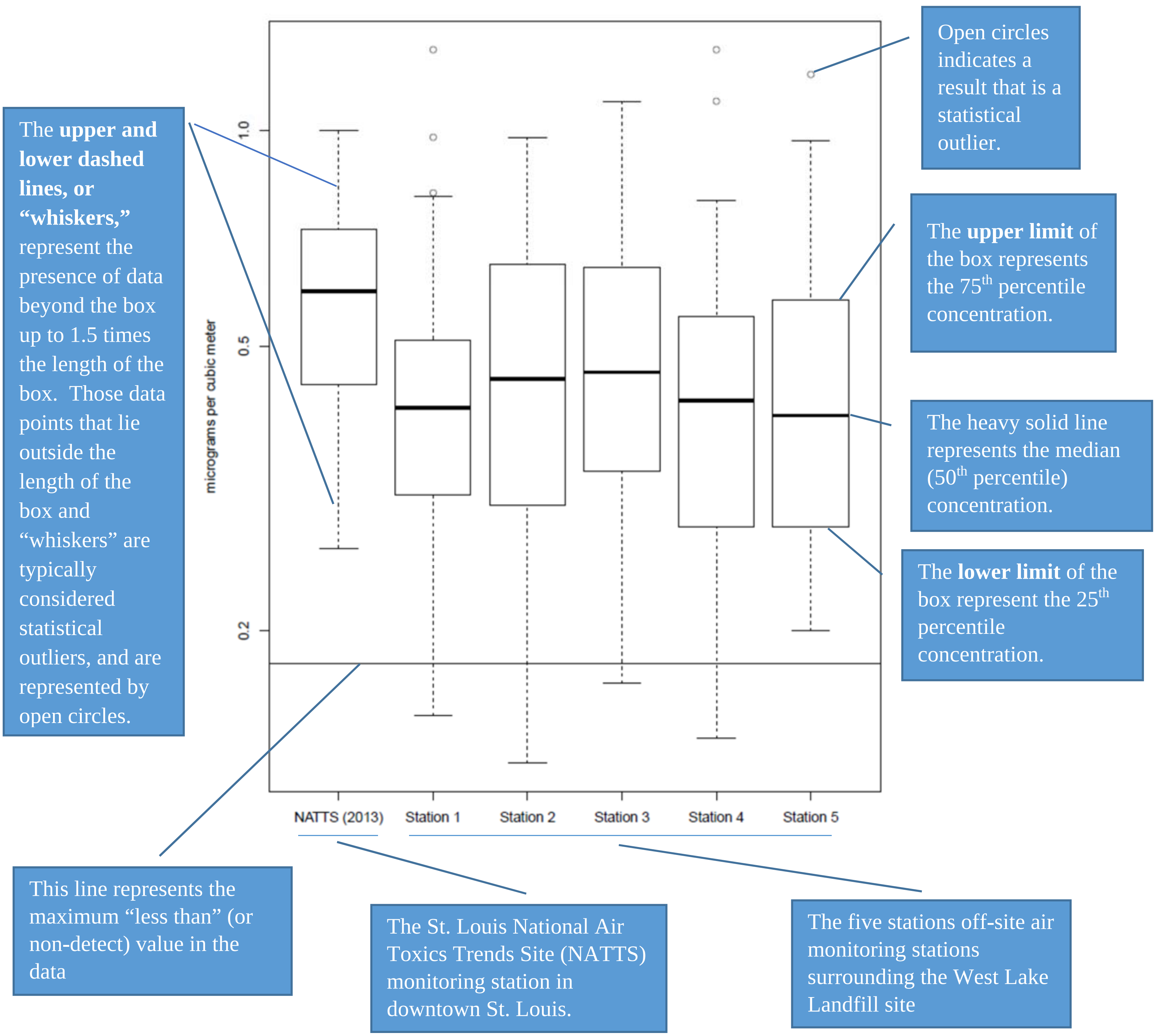
[6] Data did not undergo statistical testing because the limited detections (less than 2% total detections among the off-site WLLS stations) would provide little information regarding distributions. Moreover, no off-site WLLS station appears to have a significantly higher or lower rate of detection than any other station (detections ranged from 0 to 4%).

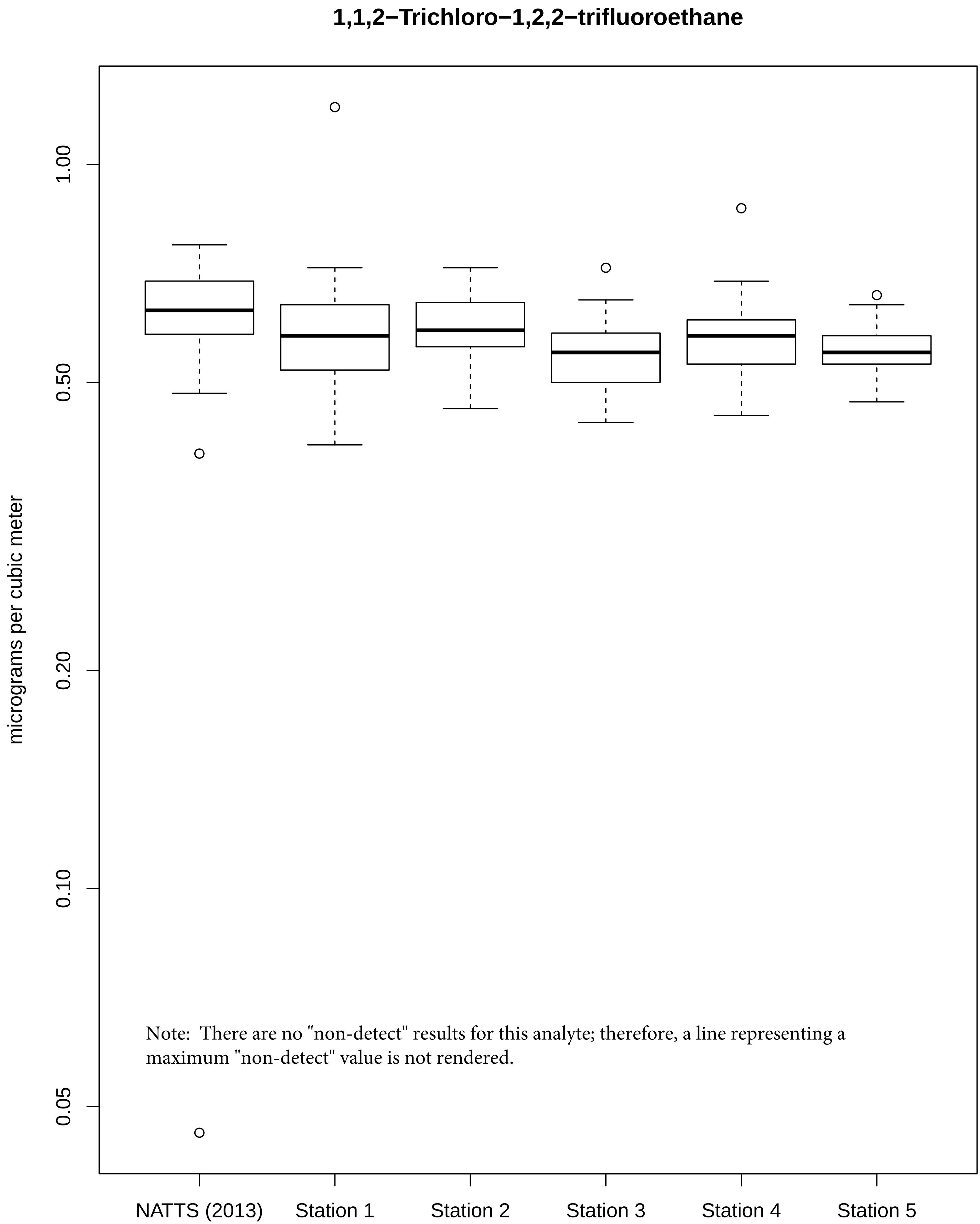
APPENDIX D

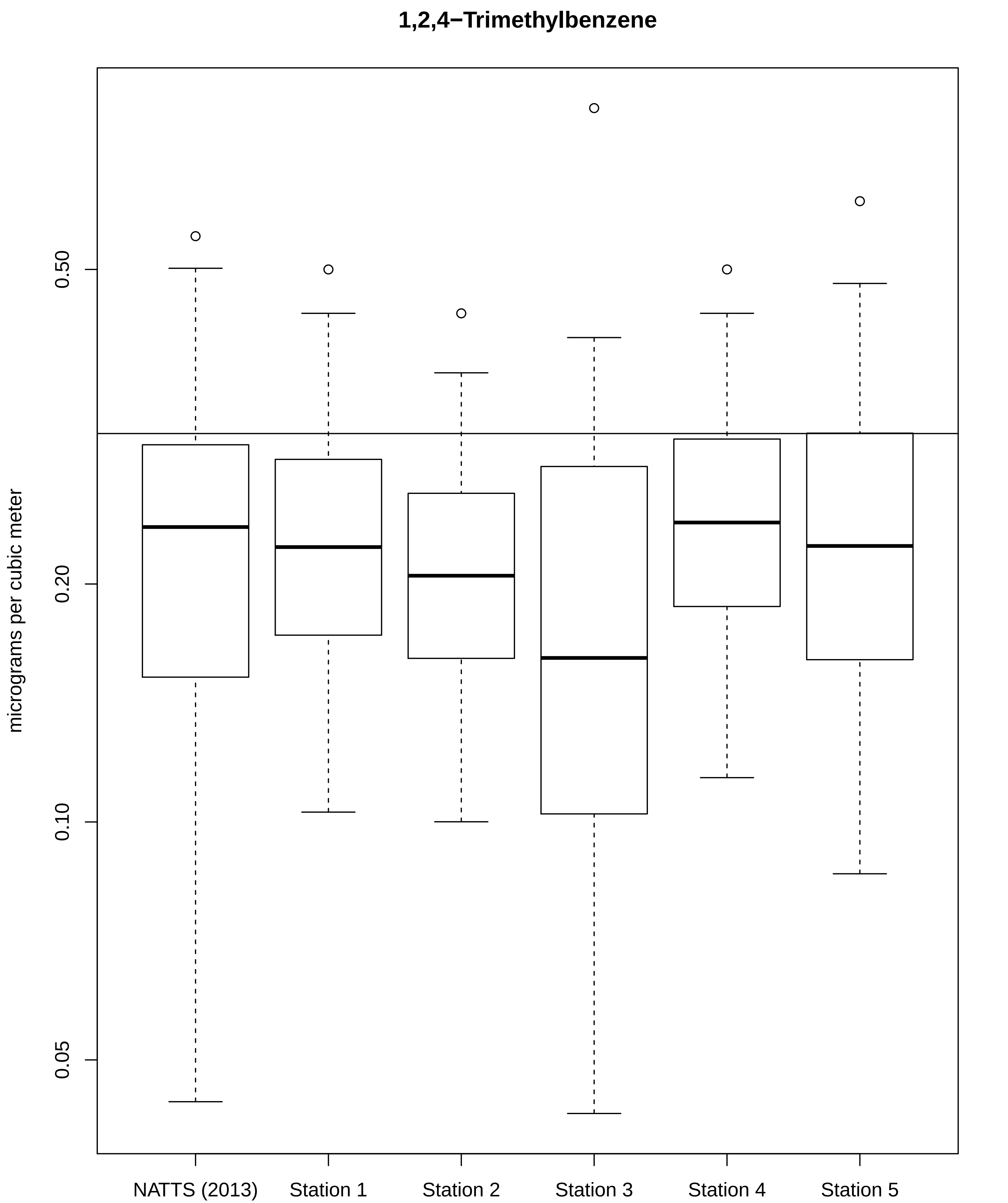
BOXPLOTS OF STATIONS 1–5 AND ST. LOUIS NATTS DATA

BOXPLOT DESCRIPTION AND KEY

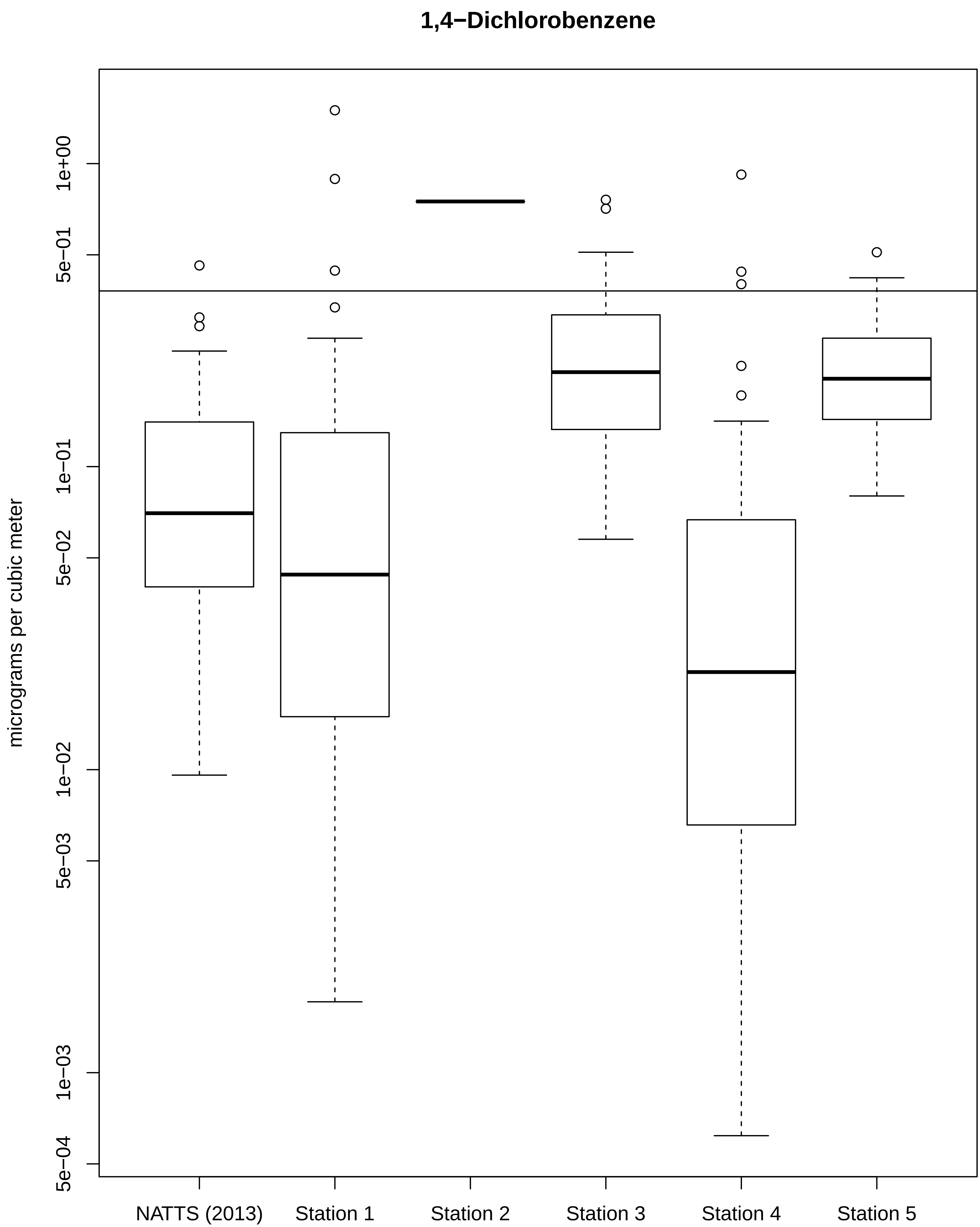
Boxplots render visual comparisons of data by displaying relative positions of the 25th, 50th, and 75th percentiles, and also individual outlier data points. The "NADA" (Nondetects and Data Analysis for environmental data) for the statistical software package R was used to create "censored" boxplots of the volatile organic compound (VOC) data. In constructing the censored boxplots, the NADA software accounts for non-detect values and displays a horizontal line across the boxplots representing the maximum "less than" value in the data. Boxplot elements above the line are statistically accurate, but boxplot elements below the line represent only estimated percentiles (based on the distribution of the uncensored data).

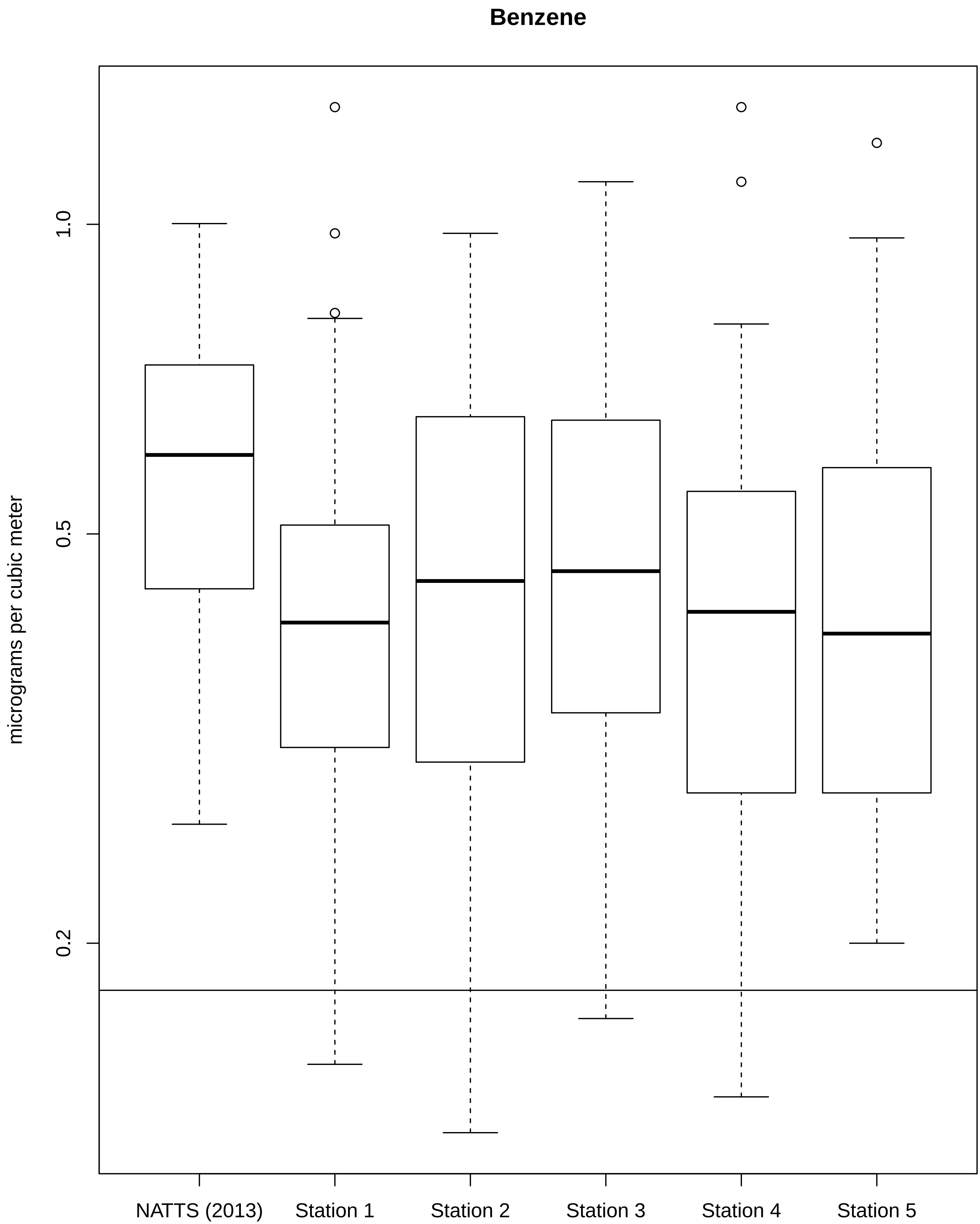


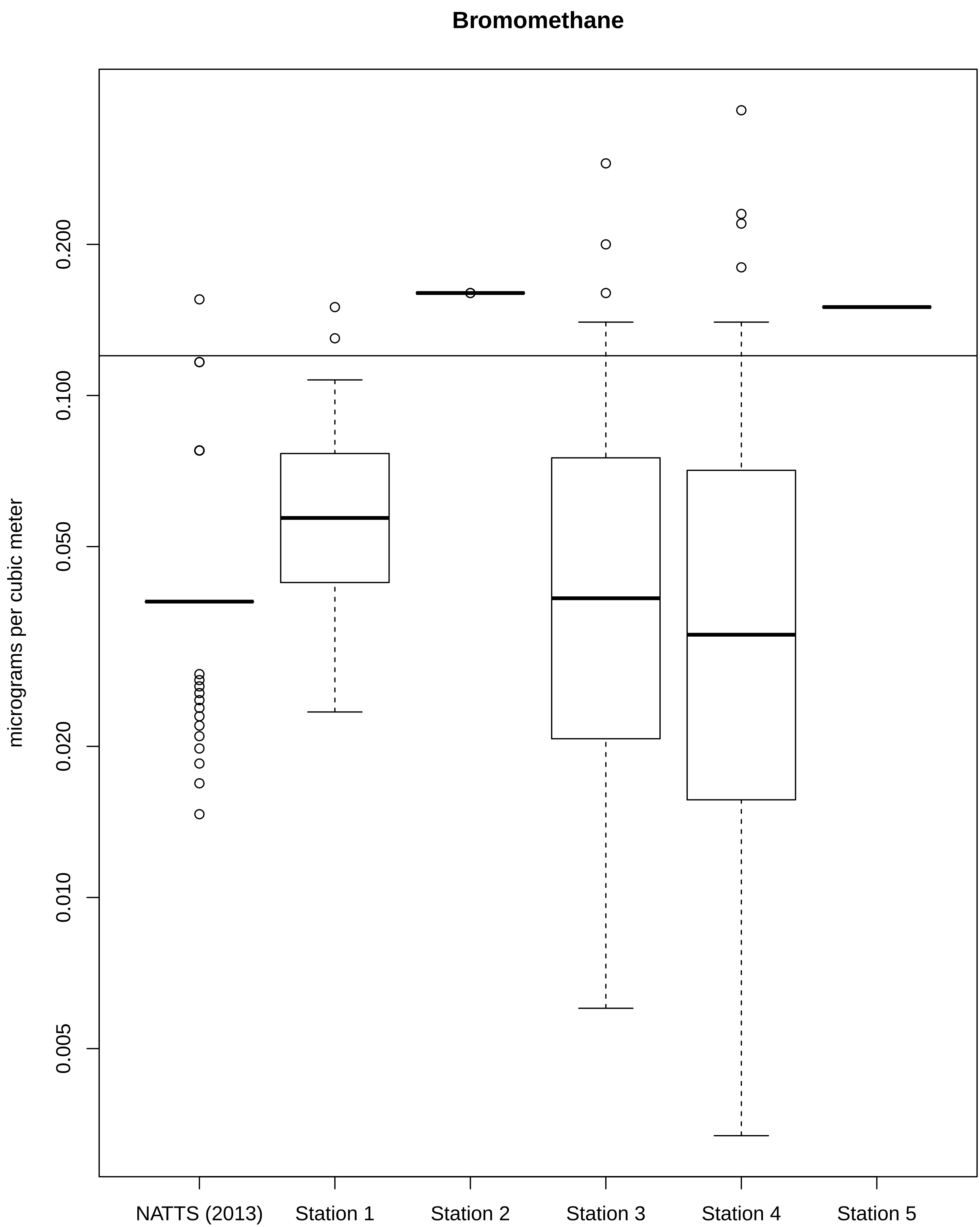

1,1,2−Trichloro−1,2,2−trifluoroethane
micrograms per cubic meter
1.00
0.50
0.20
0.10
0.05
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5
Note: There are no "non-detect" results for this analyte; therefore, a line representing a maximum "non-detect" value is not rendered.



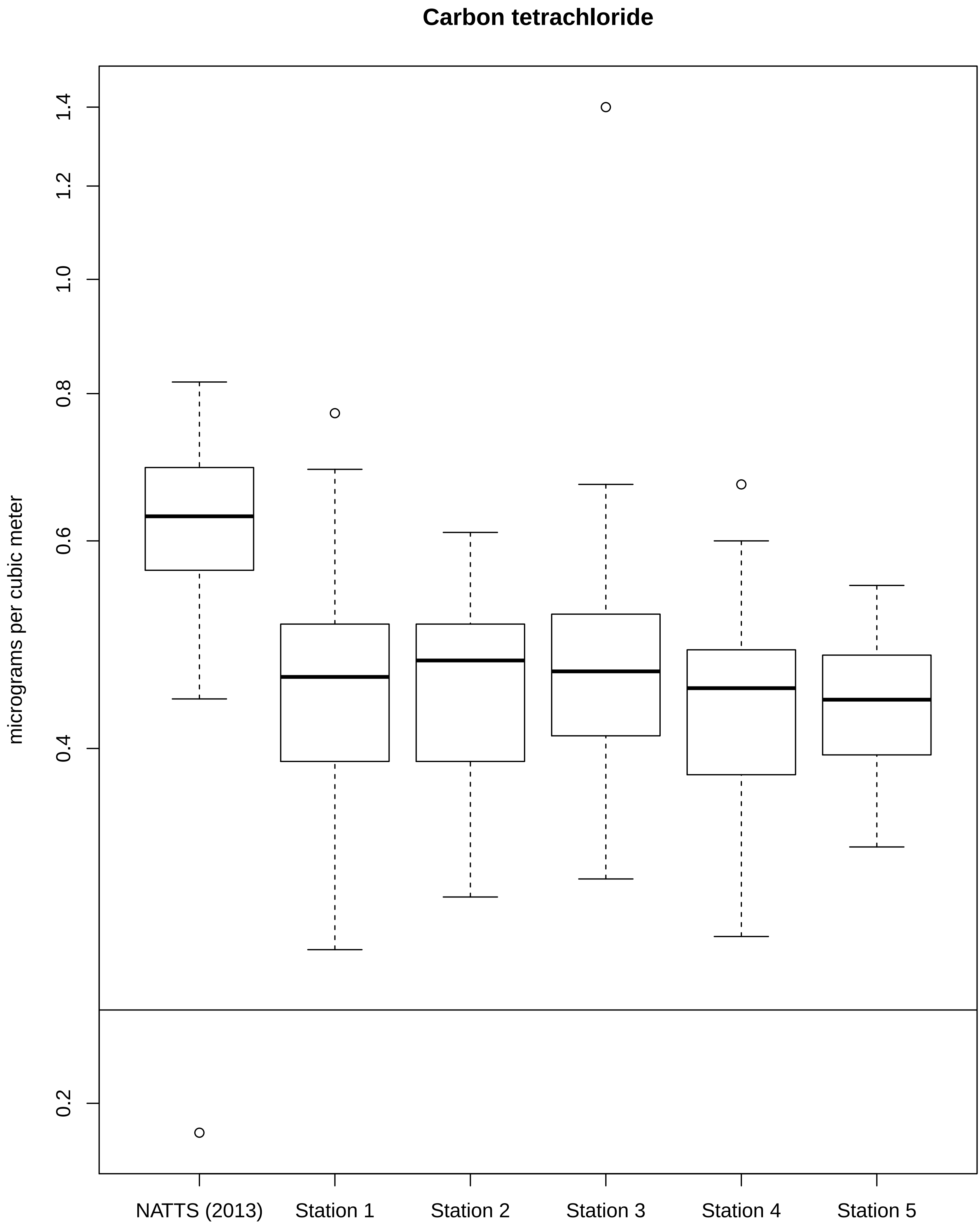
1,2,4−Trimethylbenzene
micrograms per cubic meter
0.05
0.10
0.20
0.50
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5


1,4−Dichlorobenzene
micrograms per cubic meter
1e+00
5e−01
1e−01
5e−02
1e−02
5e−03
1e−03
5e−04
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5

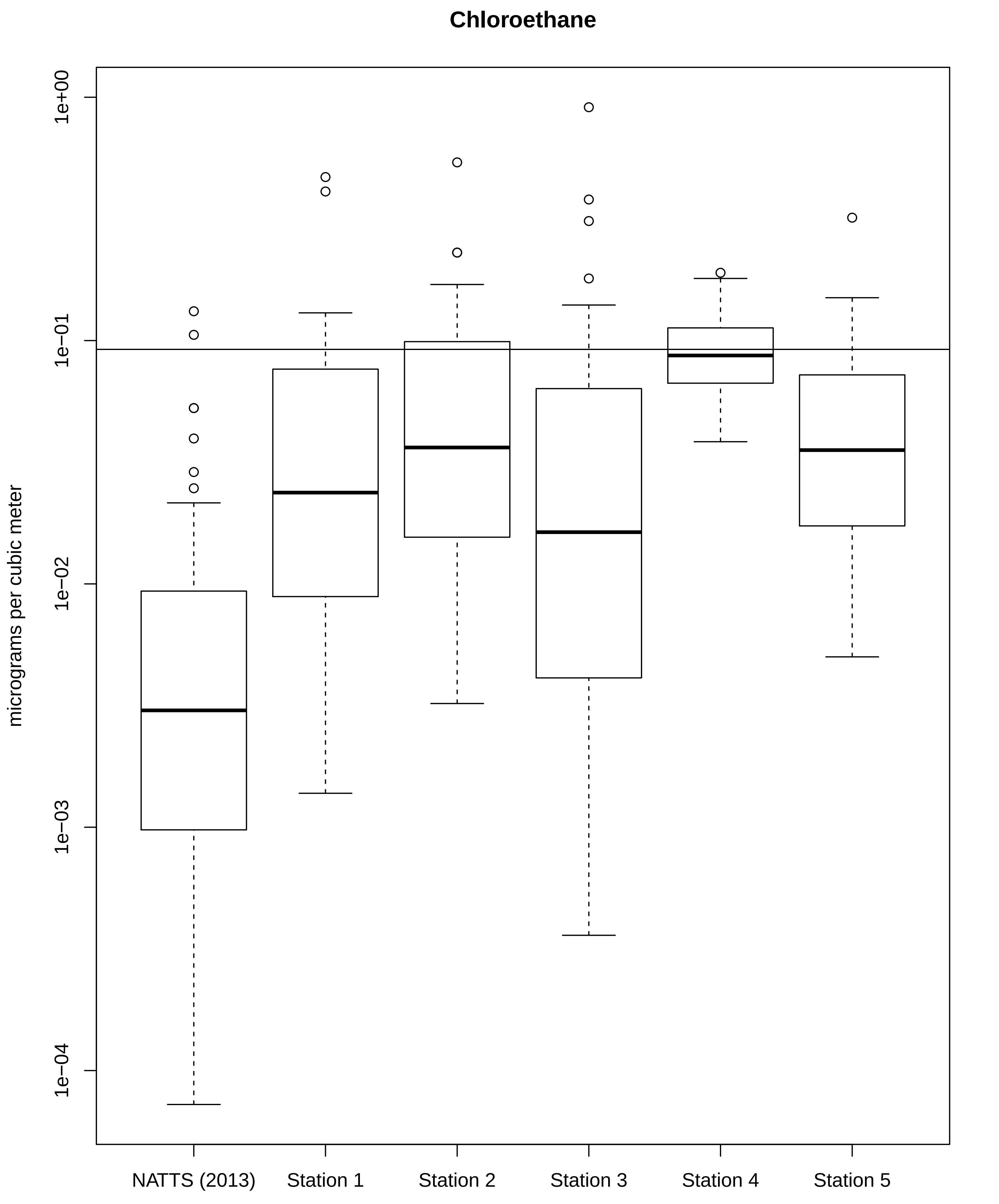

Benzene
micrograms per cubic meter
1.0
0.5
0.2
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5



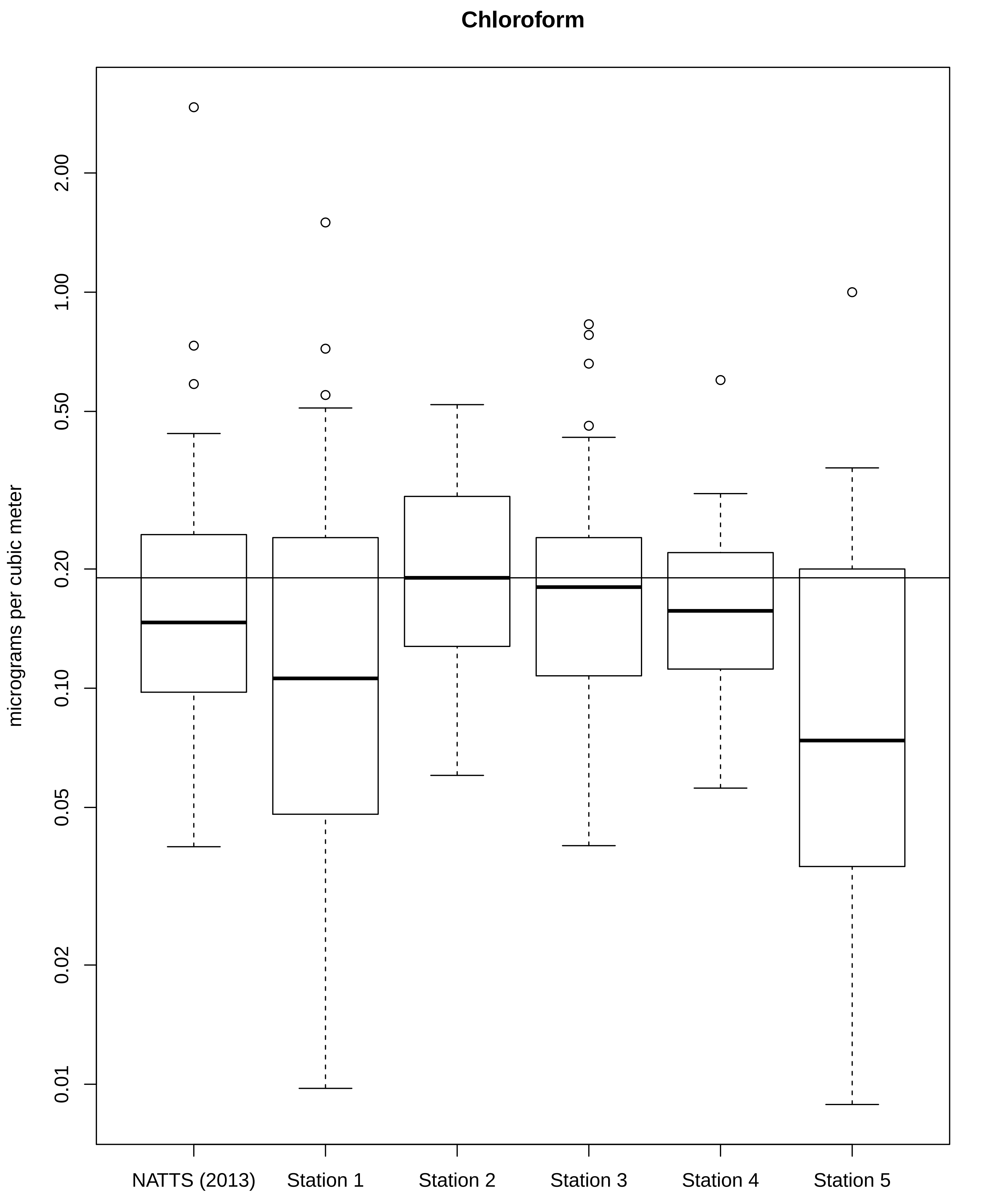
Bromomethane
micrograms per cubic meter
0.200
0.100
0.050
0.020
0.010
0.005
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5



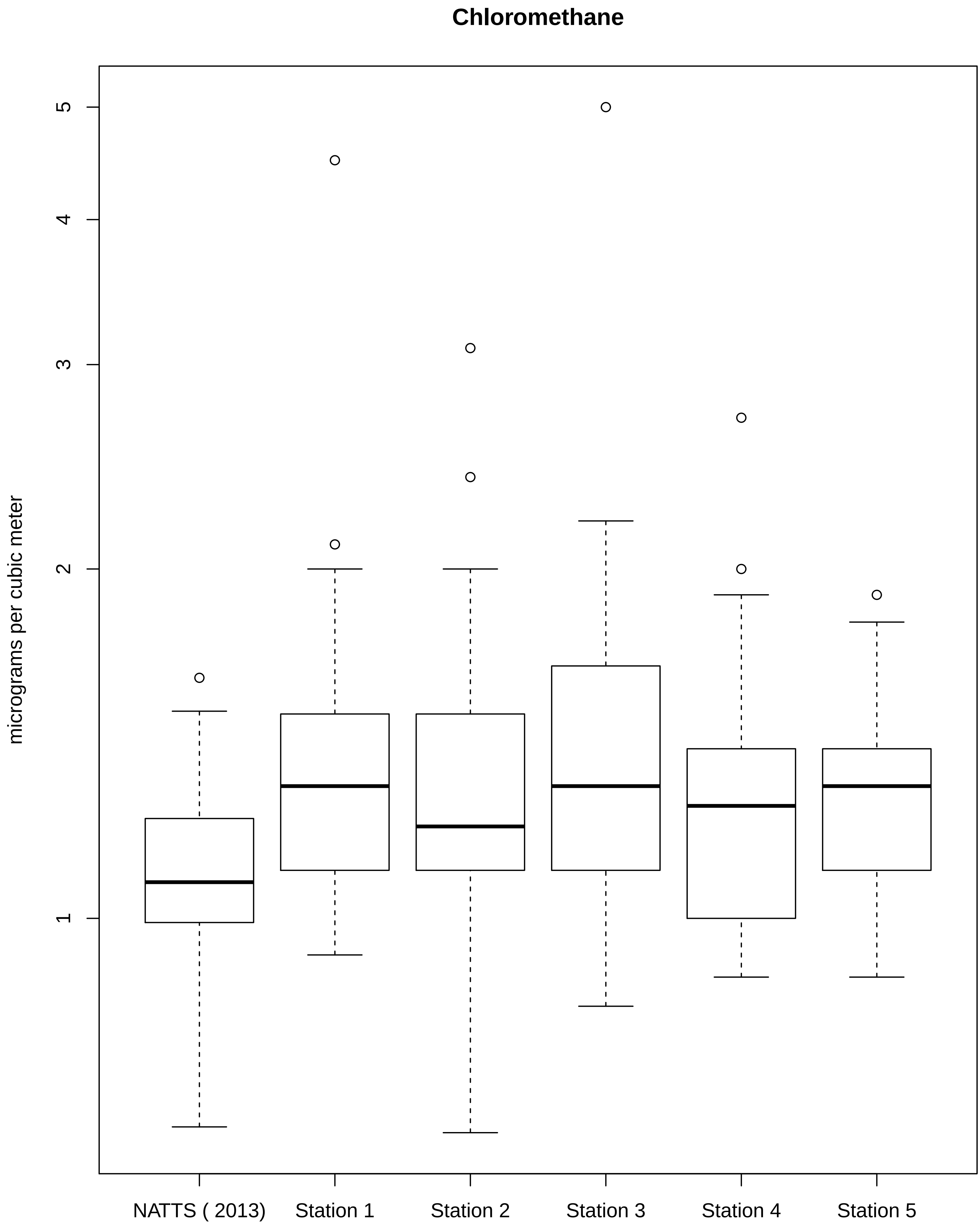
Carbon tetrachloride
micrograms per cubic meter
0.2
0.4
0.6
0.8
1.0
1.2
1.4
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5



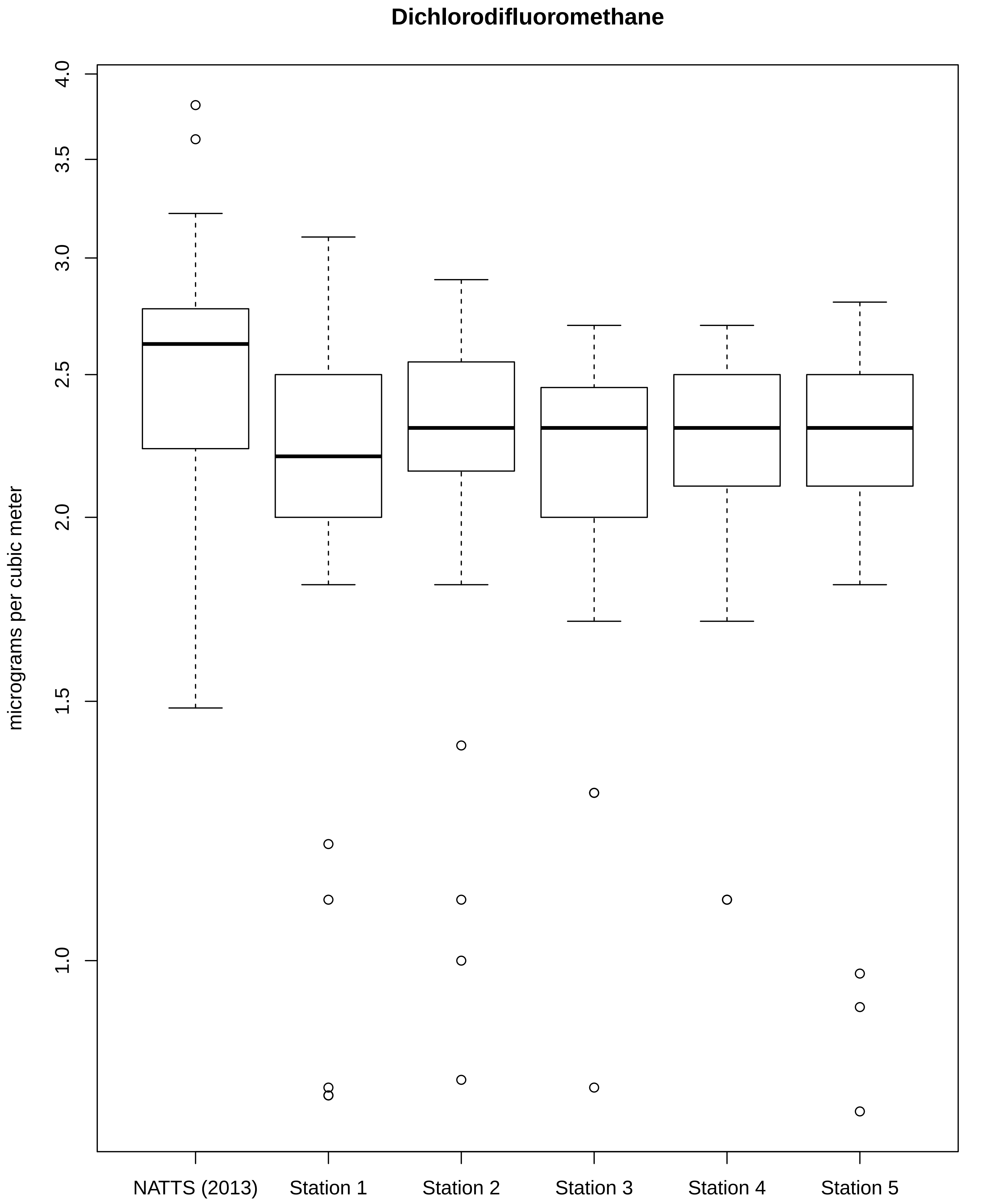
Chloroethane
micrograms per cubic meter
1e+00
1e−01
1e−02
1e−03
1e−04
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5

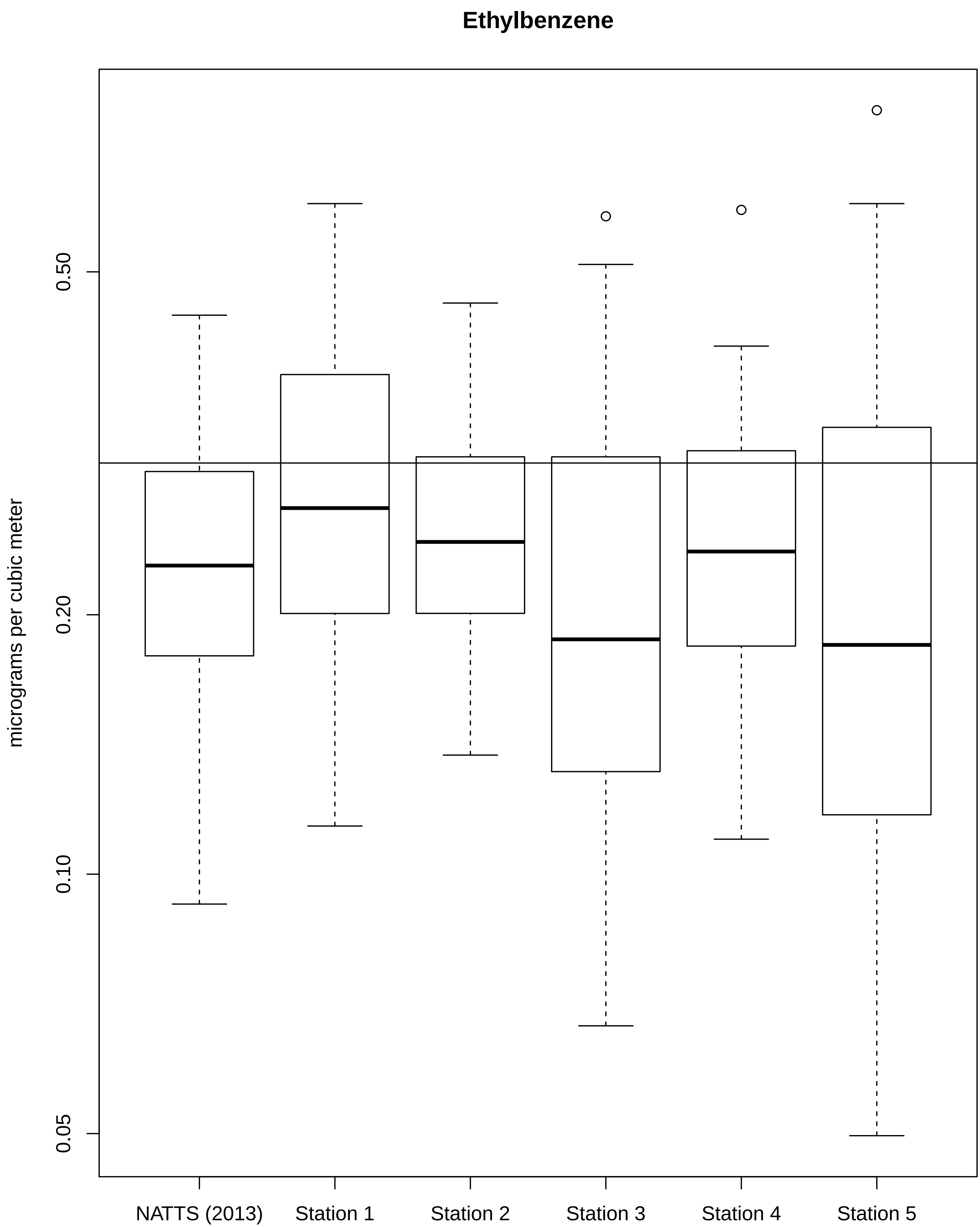


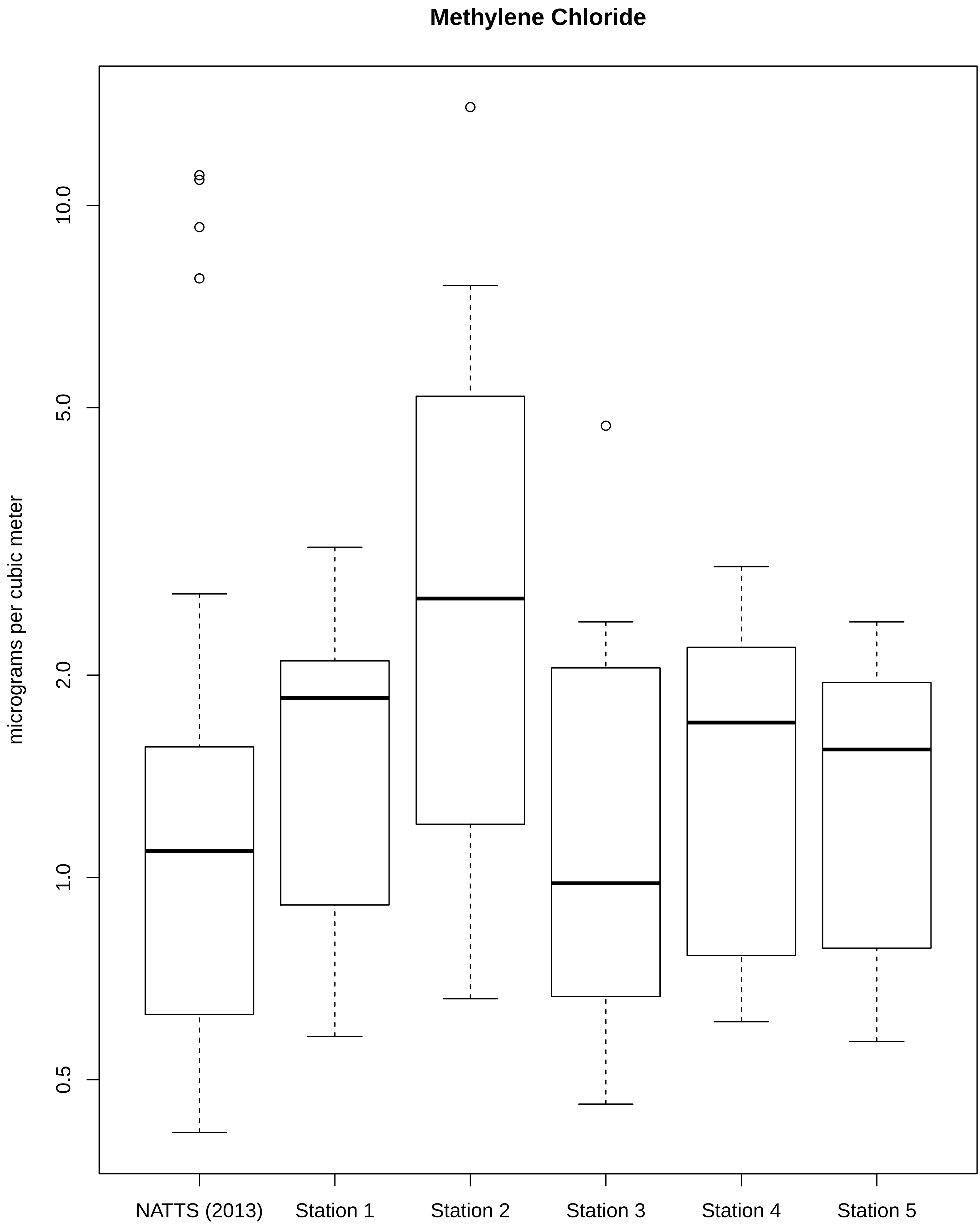
Chloroform
micrograms per cubic meter
2.00
1.00
0.50
0.20
0.10
0.05
0.02
0.01
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5



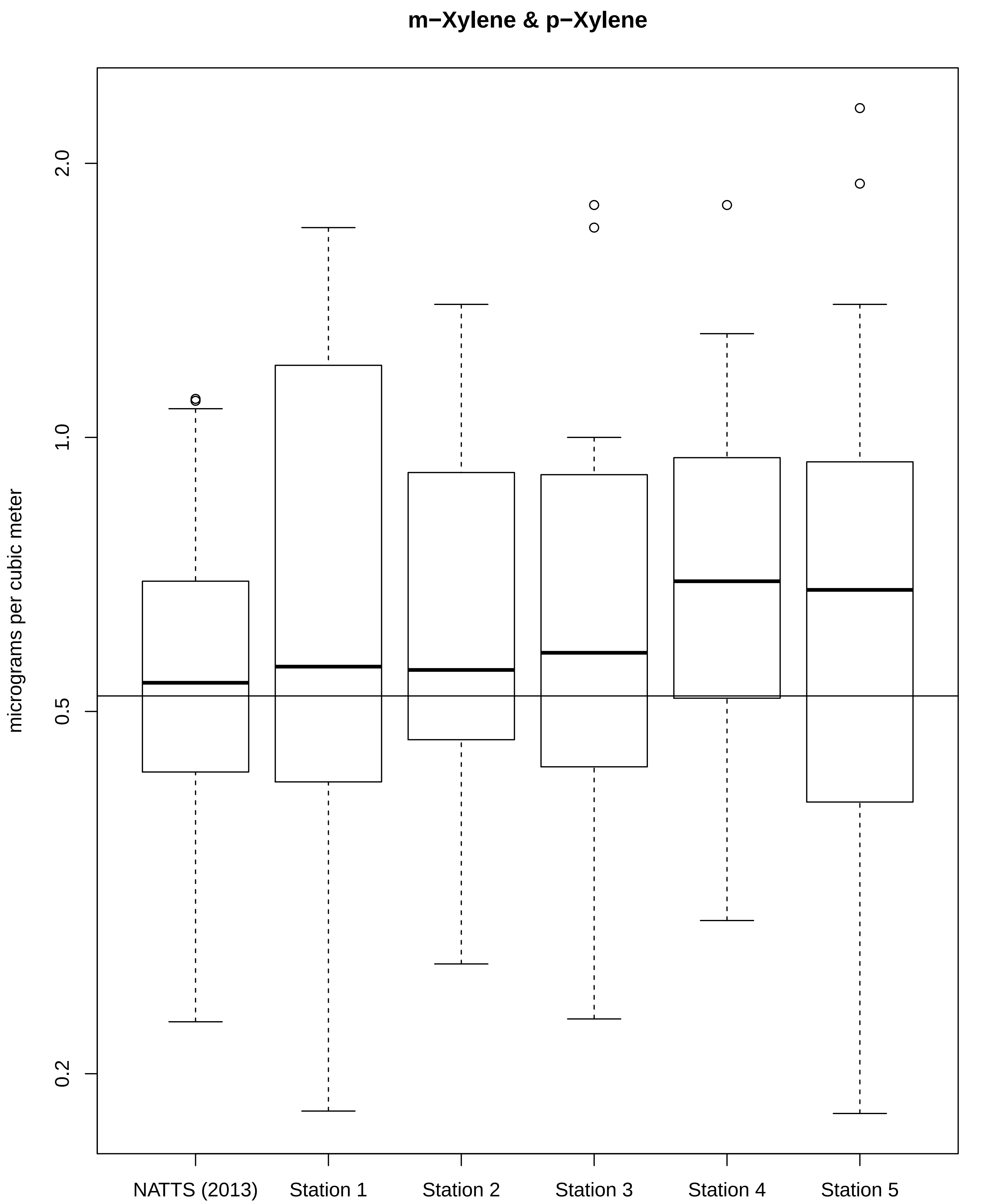
Note: There are no "non-detect" results for this analyte; therefore, a line representing a maximum "non-detect" value is not rendered.

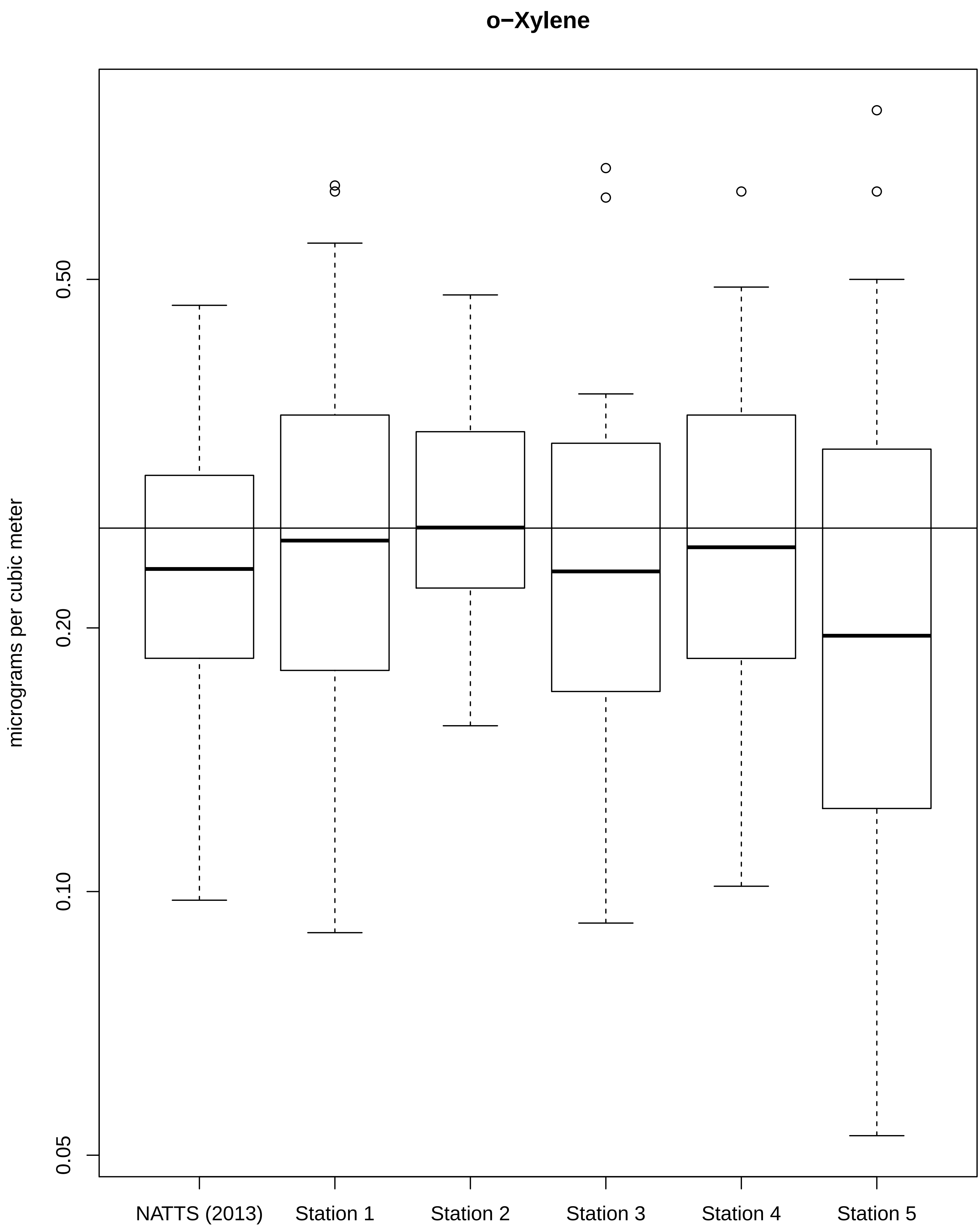

Dichlorodifluoromethane
micrograms per cubic meter
4.0
3.5
3.0
2.5
2.0
1.5
1.0
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5


Ethylbenzene
micrograms per cubic meter
0.50
0.20
0.10
0.05
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5

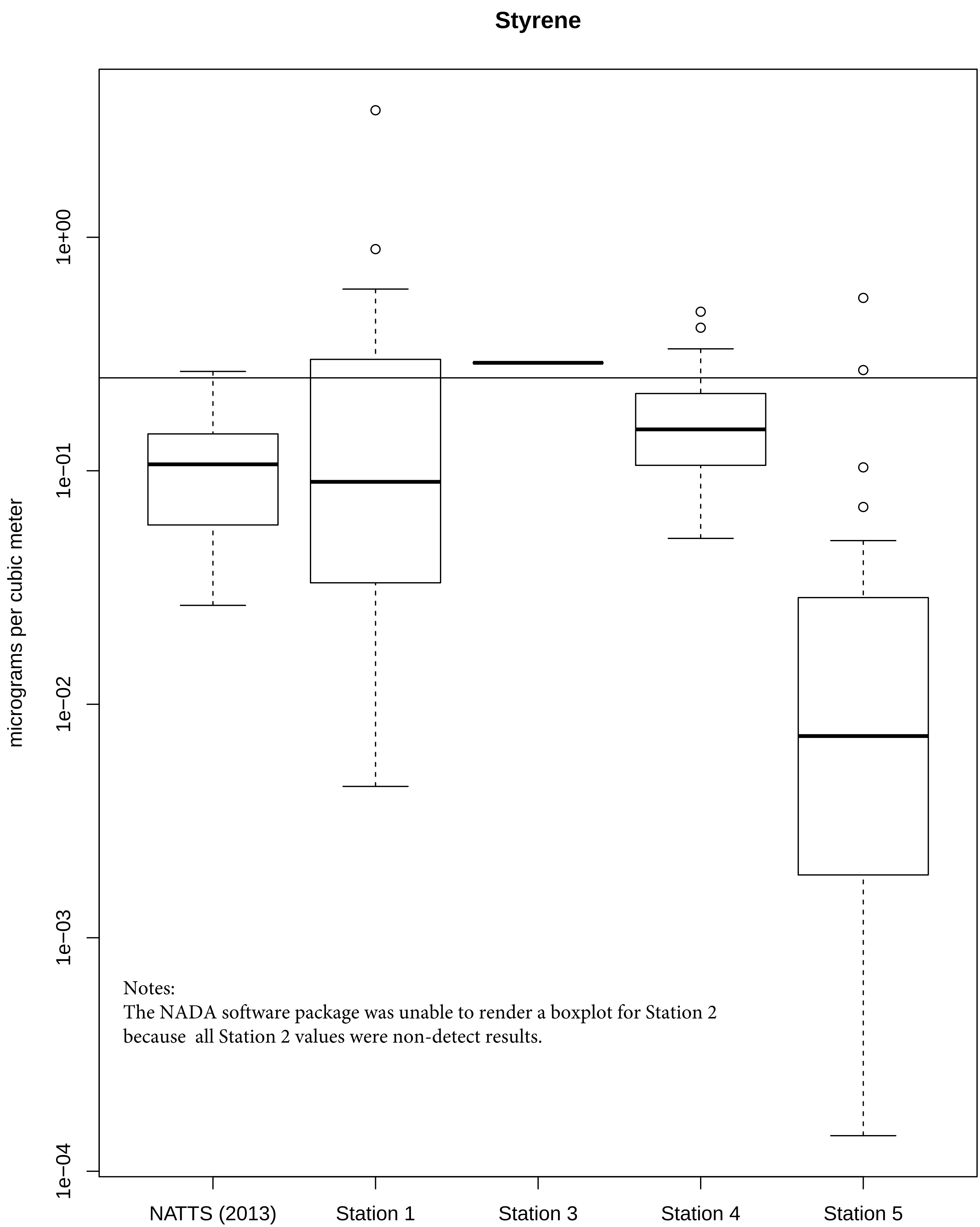


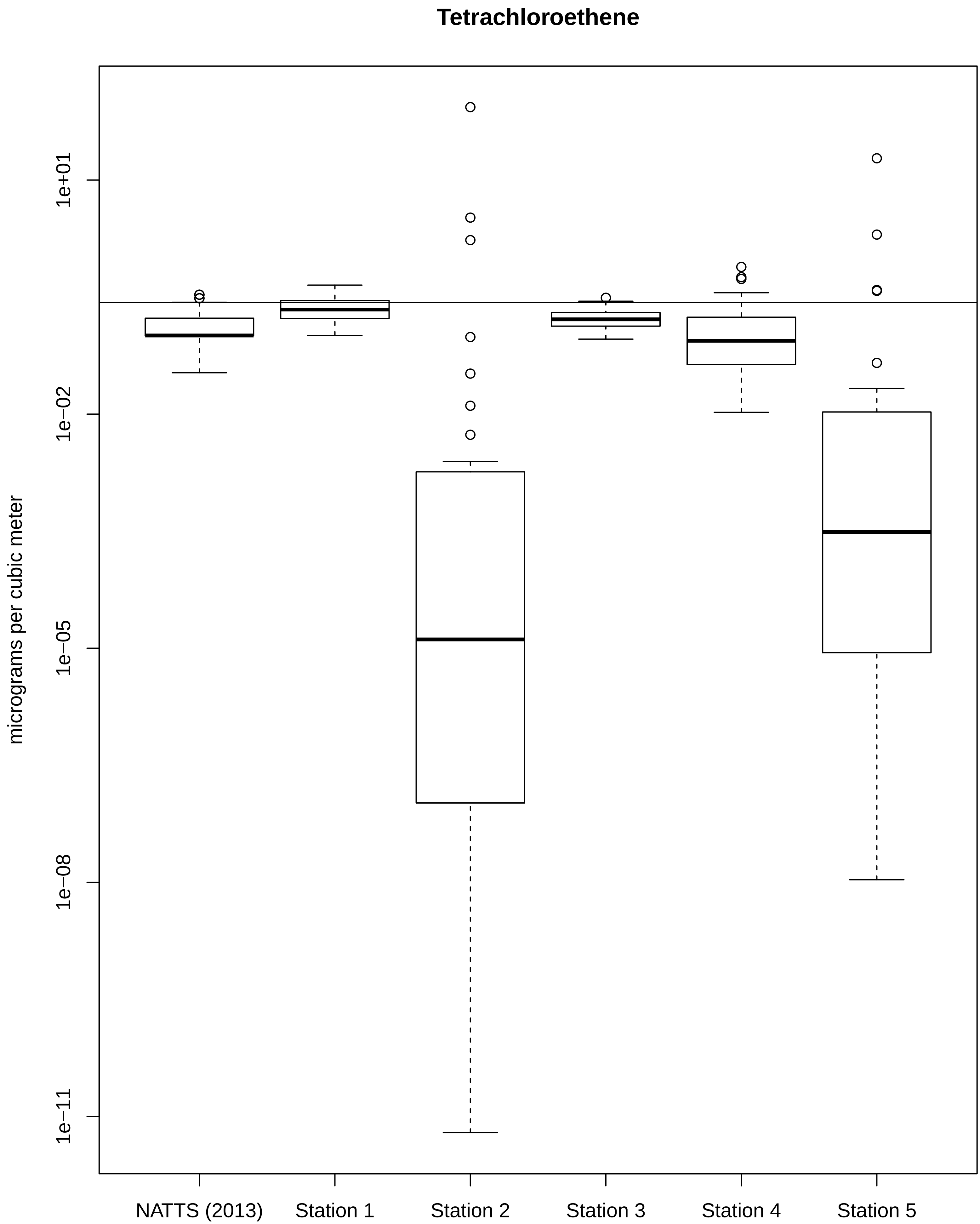
Note: There are no "non-detect" results for this analyte; therefore, a line representing a maximum "non-detect" value is not rendered.


m−Xylene & p−Xylene
micrograms per cubic meter
2.0
1.0
0.5
0.2
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5

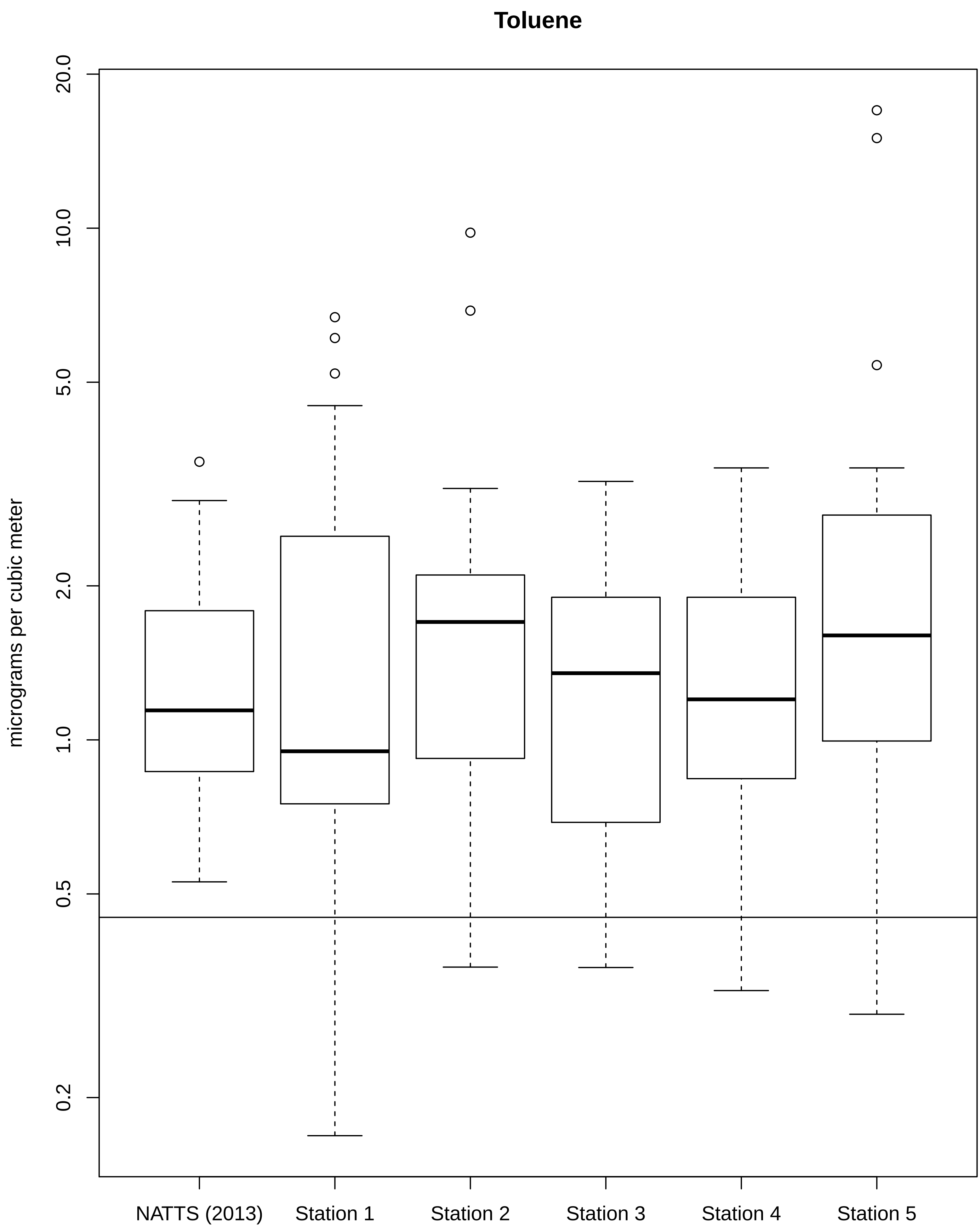


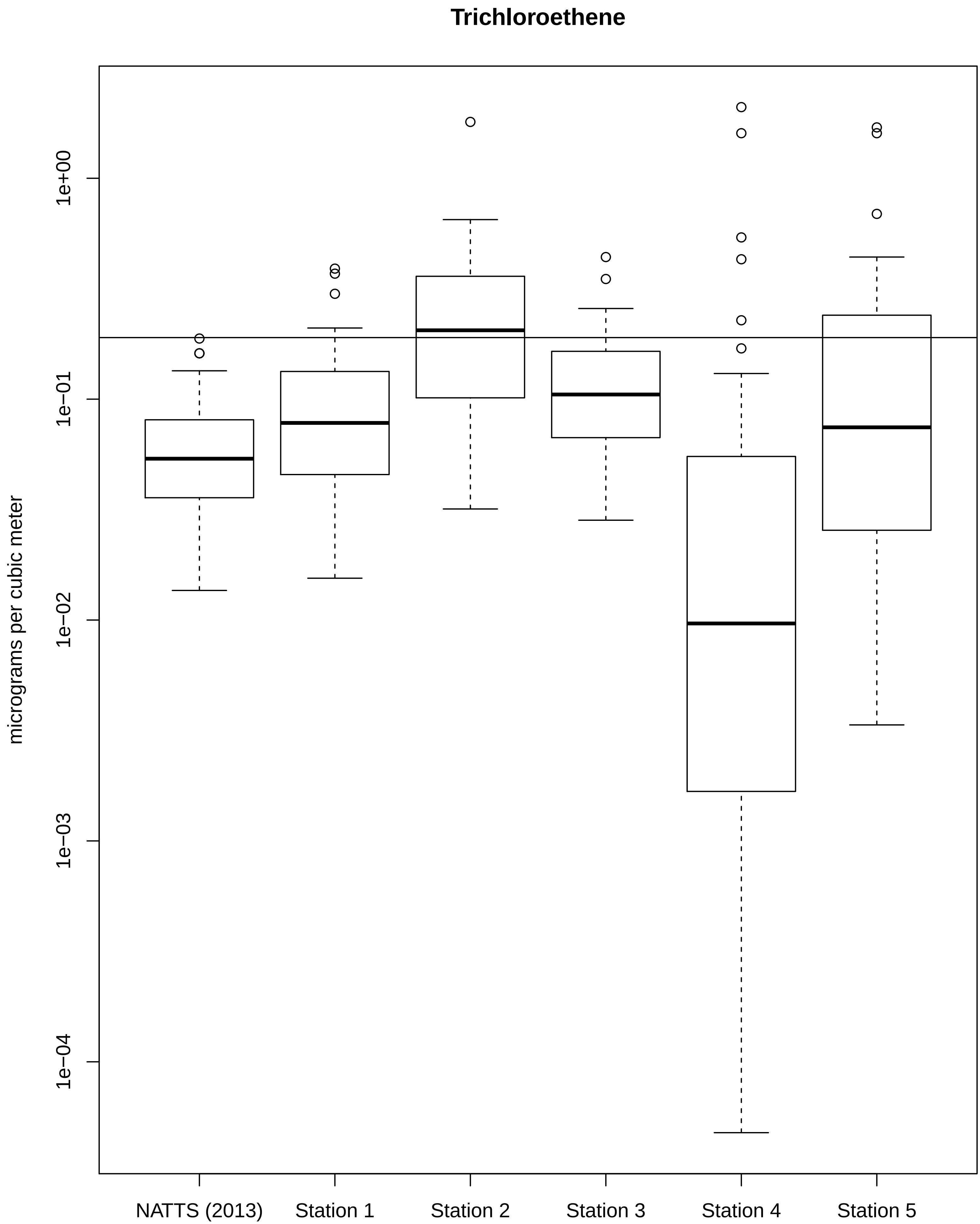
o−Xylene
micrograms per cubic meter
0.05
0.10
0.20
0.50
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5

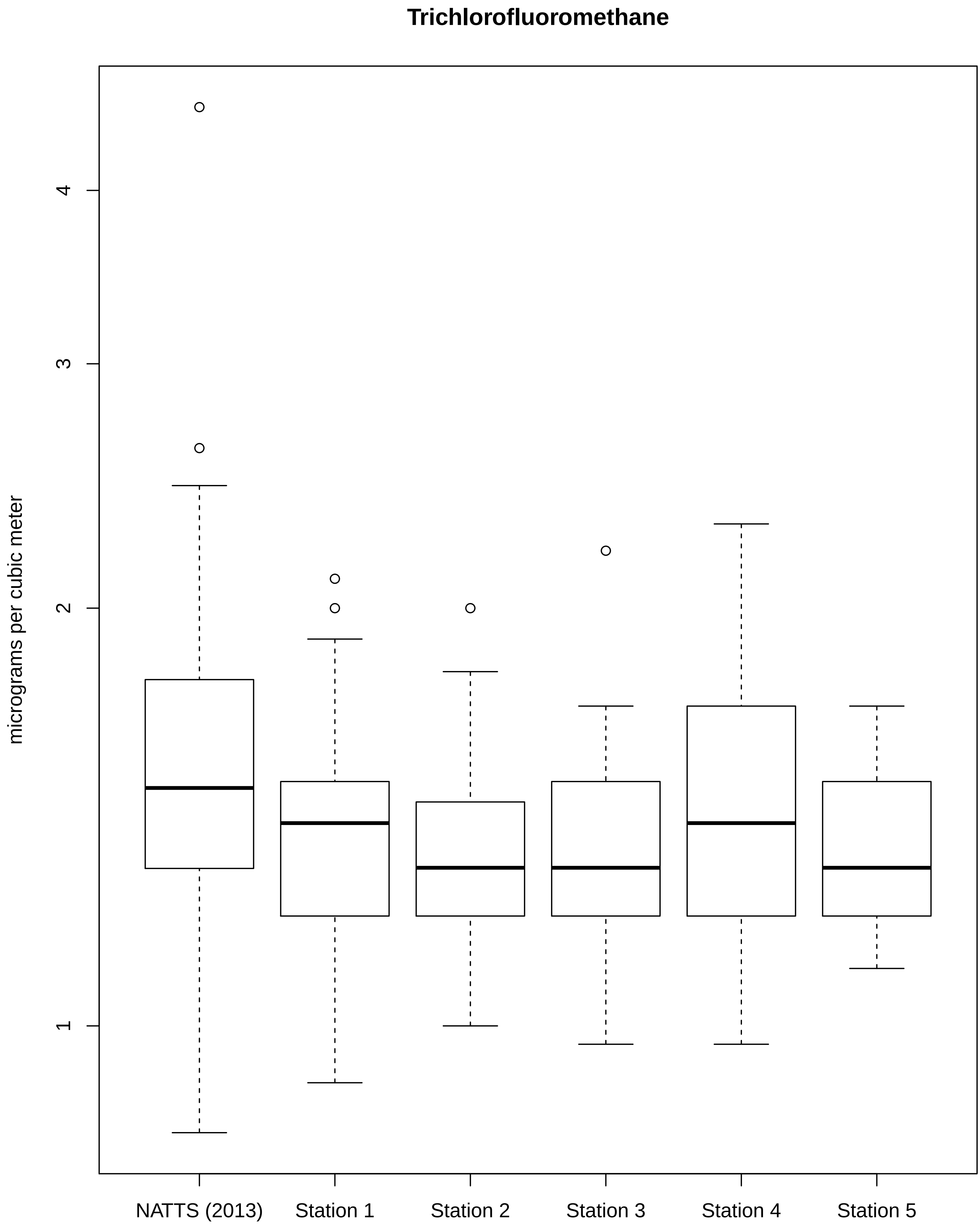

Styrene
micrograms per cubic meter
1e+00
1e−01
1e−02
1e−03
1e−04
NATTS (2013)
Station 1
Station 3
Station 4
Station 5
Notes:
The NADA software package was unable to render a boxplot for Station 2
because all Station 2 values were non-detect results.



Tetrachloroethene
micrograms per cubic meter
1e+01
1e−02
1e−05
1e−08
1e−11
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5


Toluene
micrograms per cubic meter
20.0
10.0
5.0
2.0
1.0
0.5
0.2
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5

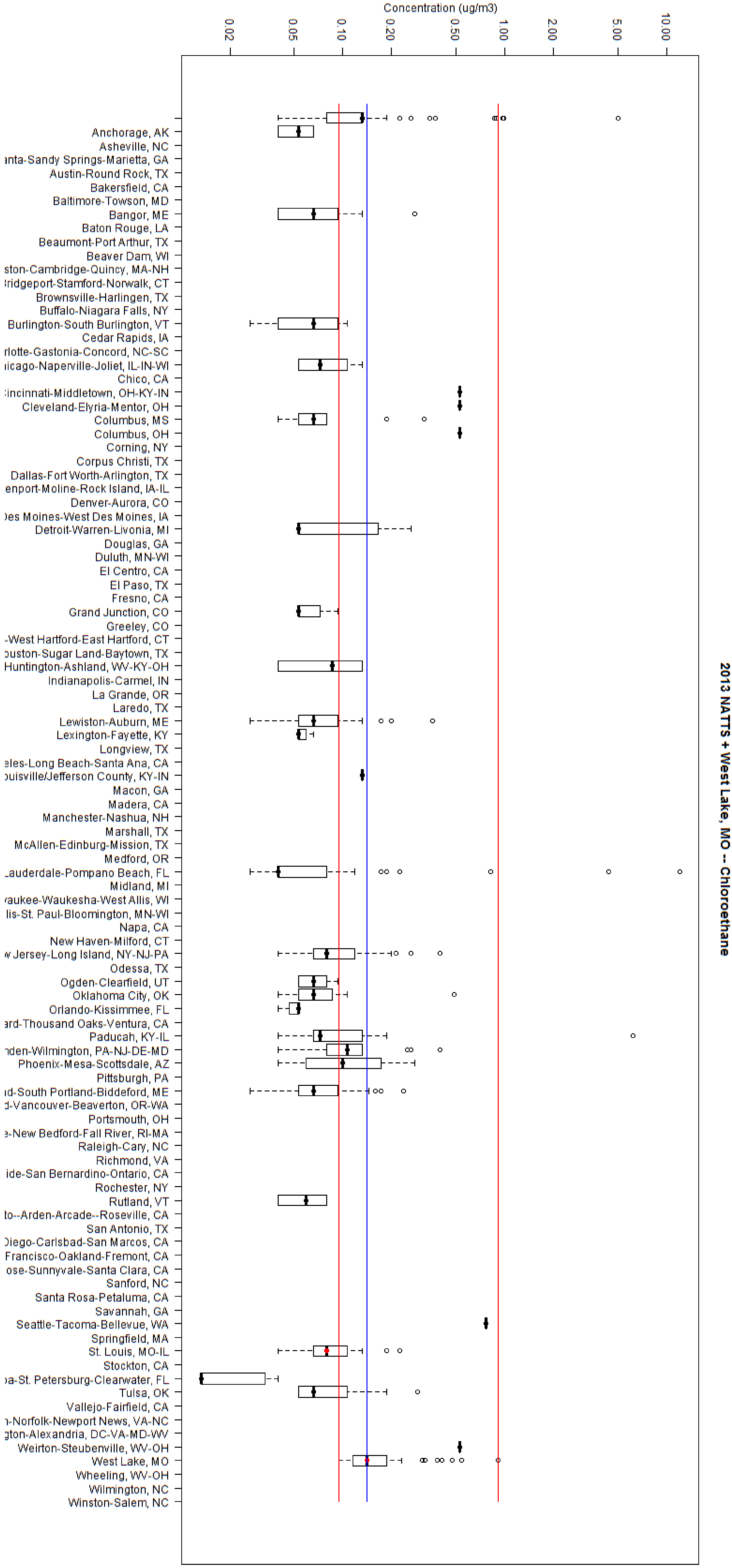

Trichloroethene
micrograms per cubic meter
1e+00
1e−01
1e−02
1e−03
1e−04
NATTS (2013)
Station 1
Station 2
Station 3
Station 4
Station 5

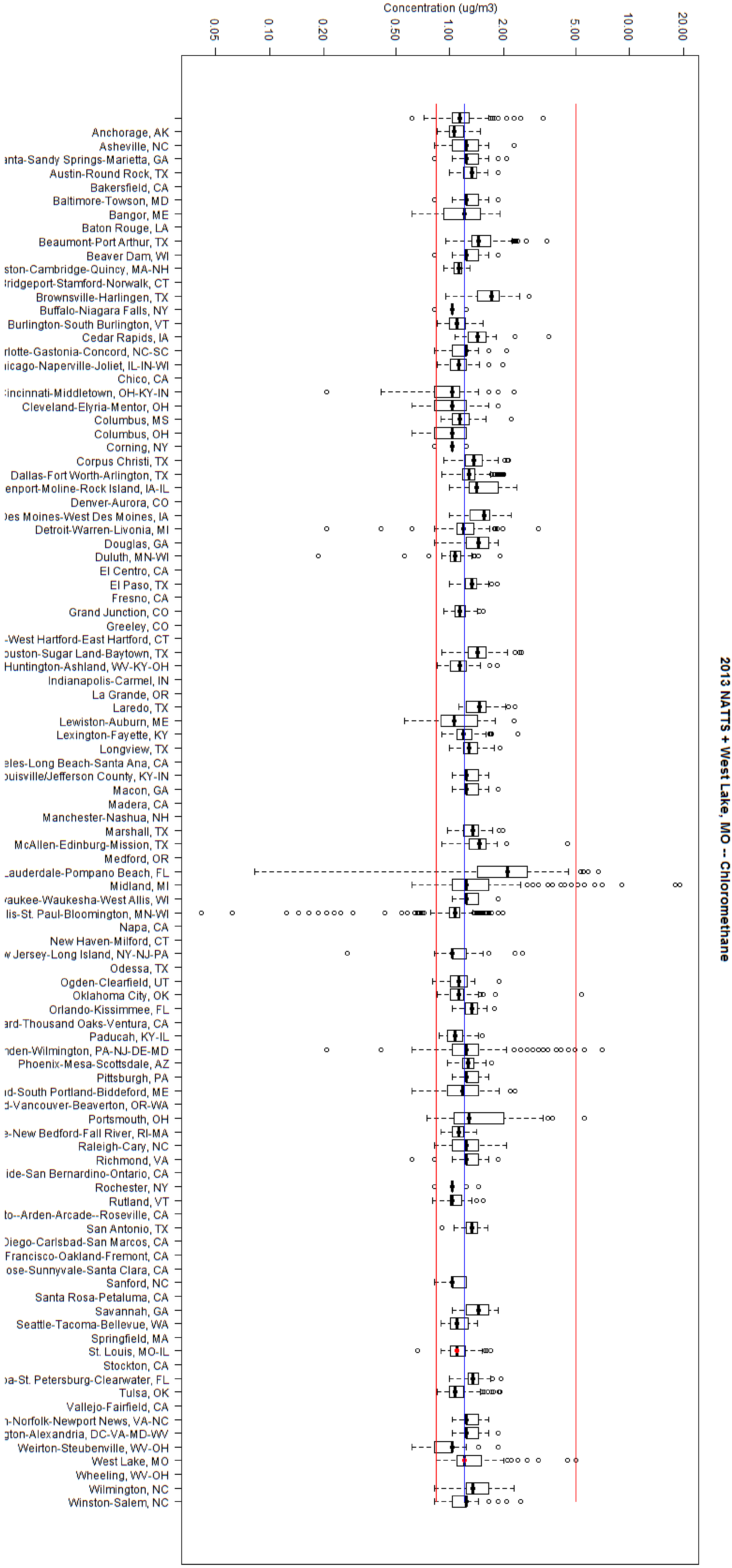


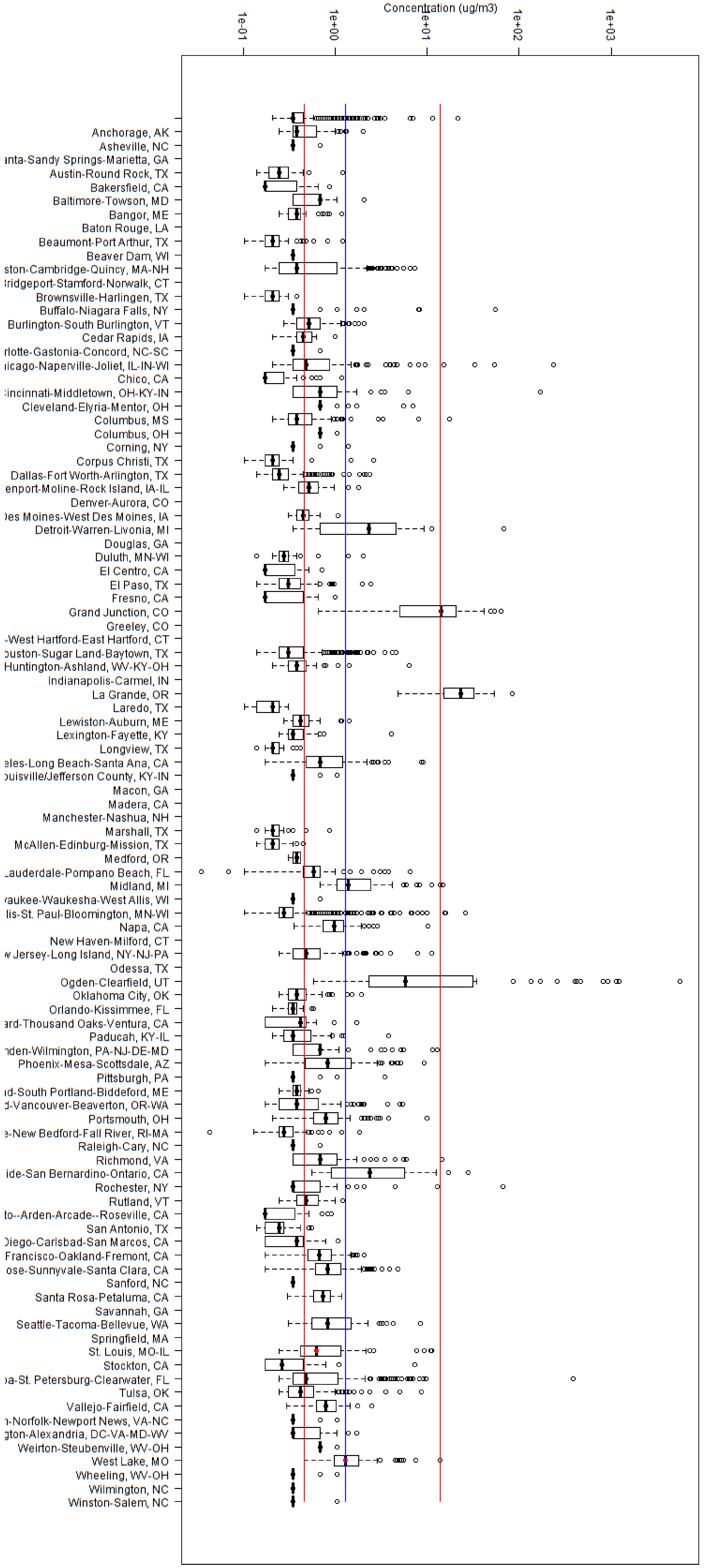
Note: There are no "non-detect" results for this analyte; therefore, a line representing a maximum "non-detect" value is not rendered.

APPENDIX E

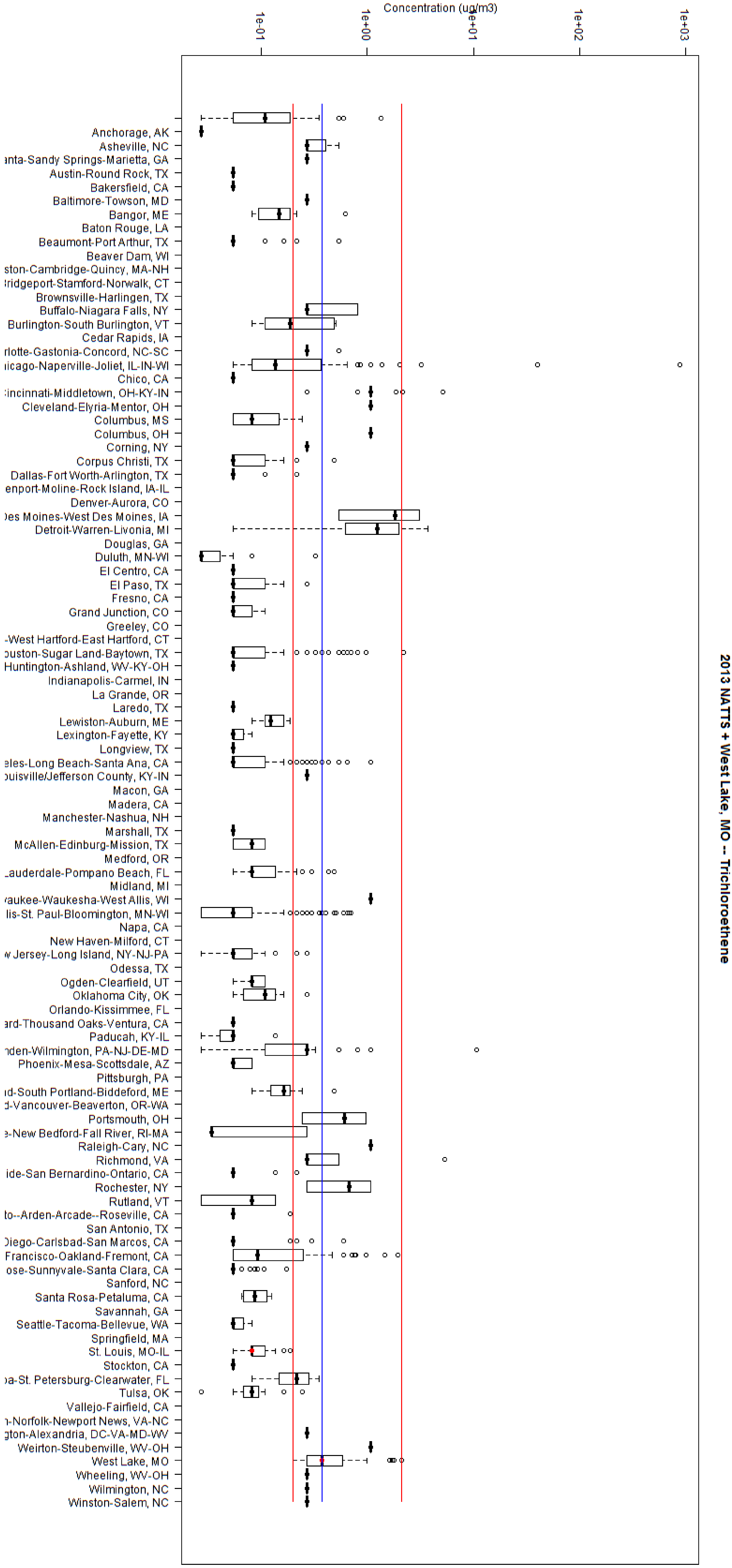
BOXPLOTS OF NATTS DATA FOR SELECT VOCS


2013 NATTS + West Lake, MO -- Chloroethane
Concentration (ug/m3)
0.02
0.05
0.10
0.20
0.50
1.00
2.00
5.00
10.00
Anchorage, AK
Asheville, NC
ınta-Sandy Springs-Marietta, GA
Austin-Round Rock, TX
Bakersfield, CA
Baltimore-Towson, MD
Bangor, ME
Baton Rouge, LA
Beaumont-Port Arthur, TX
Beaver Dam, WI
ston-Cambridge-Quincy, MA-NH
ridgeport-Stamford-Norwalk, CT
Brownsville-Harlingen, TX
Buffalo-Niagara Falls, NY
Burlington-South Burlington, VT
Cedar Rapids, IA
rlotte-Gastonia-Concord, NC-SC
ıicago-Naperville-Joliet, IL-IN-WI
Chico, CA
incinnati-Middletown, OH-KY-IN
Cleveland-Elyria-Mentor, OH
Columbus, MS
Columbus, OH
Corning, NY
Corpus Christi, TX
Dallas-Fort Worth-Arlington, TX
enport-Moline-Rock Island, IA-IL
Denver-Aurora, CO
Des Moines-West Des Moines, IA
Detroit-Warren-Livonia, MI
Douglas, GA
Duluth, MN-WI
El Centro, CA
El Paso, TX
Fresno, CA
Grand Junction, CO
Greeley, CO
-West Hartford-East Hartford, CT
ouston-Sugar Land-Baytown, TX
Huntington-Ashland, WV-KY-OH
Indianapolis-Carmel, IN
La Grande, OR
Laredo, TX
Lewiston-Auburn, ME
Lexington-Fayette, KY
Longview, TX
eles-Long Beach-Santa Ana, CA
ouisville/Jefferson County, KY-IN
Macon, GA
Madera, CA
Manchester-Nashua, NH
Marshall, TX
McAllen-Edinburg-Mission, TX
Medford, OR
Lauderdale-Pompano Beach, FL
Midland, MI
aukee-Waukesha-West Allis, WI
lis-St. Paul-Bloomington, MN-WI
Napa, CA
New Haven-Milford, CT
w Jersey-Long Island, NY-NJ-PA
Odessa, TX
Ogden-Clearfield, UT
Oklahoma City, OK
Orlando-Kissimmee, FL
ard-Thousand Oaks-Ventura, CA
Paducah, KY-IL
ıden-Wilmington, PA-NJ-DE-MD
Phoenix-Mesa-Scottsdale, AZ
Pittsburgh, PA
ıd-South Portland-Biddeford, ME
d-Vancouver-Beaverton, OR-WA
Portsmouth, OH
e-New Bedford-Fall River, RI-MA
Raleigh-Cary, NC
Richmond, VA
ide-San Bernardino-Ontario, CA
Rochester, NY
Rutland, VT
to--Arden-Arcade--Roseville, CA
San Antonio, TX
Diego-Carlsbad-San Marcos, CA
Francisco-Oakland-Fremont, CA
ose-Sunnyvale-Santa Clara, CA
Sanford, NC
Santa Rosa-Petaluma, CA
Savannah, GA
Seattle-Tacoma-Bellevue, WA
Springfield, MA
St. Louis, MO-IL
Stockton, CA
a-St. Petersburg-Clearwater, FL
Tulsa, OK
Vallejo-Fairfield, CA
ı-Norfolk-Newport News, VA-NC
gton-Alexandria, DC-VA-MD-WV
Weirton-Steubenville, WV-OH
West Lake, MO
Wheeling, WV-OH
Wilmington, NC
Winston-Salem, NC

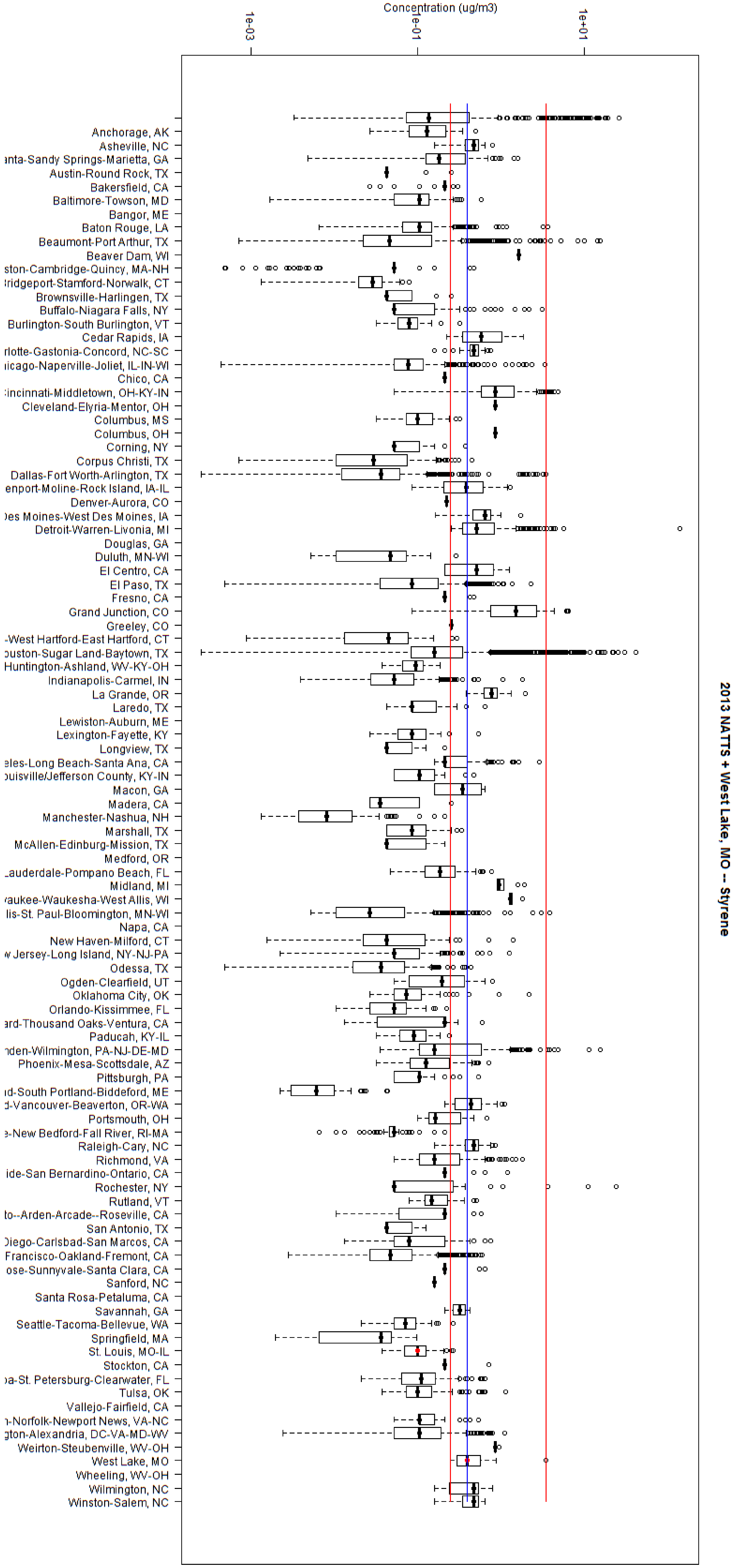

2013 NATTS + West Lake, MO -- Chloromethane
Concentration (ug/m3)
0.05
0.10
0.20
0.50
1.00
2.00
5.00
10.00
20.00
Anchorage, AK
Asheville, NC
ınta-Sandy Springs-Marietta, GA
Austin-Round Rock, TX
Bakersfield, CA
Baltimore-Towson, MD
Bangor, ME
Baton Rouge, LA
Beaumont-Port Arthur, TX
Beaver Dam, WI
ston-Cambridge-Quincy, MA-NH
ridgeport-Stamford-Norwalk, CT
Brownsville-Harlingen, TX
Buffalo-Niagara Falls, NY
Burlington-South Burlington, VT
Cedar Rapids, IA
rlotte-Gastonia-Concord, NC-SC
icago-Naperville-Joliet, IL-IN-WI
Chico, CA
incinnati-Middletown, OH-KY-IN
Cleveland-Elyria-Mentor, OH
Columbus, MS
Columbus, OH
Corning, NY
Corpus Christi, TX
Dallas-Fort Worth-Arlington, TX
enport-Moline-Rock Island, IA-IL
Denver-Aurora, CO
Des Moines-West Des Moines, IA
Detroit-Warren-Livonia, MI
Douglas, GA
Duluth, MN-WI
El Centro, CA
El Paso, TX
Fresno, CA
Grand Junction, CO
Greeley, CO
-West Hartford-East Hartford, CT
ouston-Sugar Land-Baytown, TX
Huntington-Ashland, WV-KY-OH
Indianapolis-Carmel, IN
La Grande, OR
Laredo, TX
Lewiston-Auburn, ME
Lexington-Fayette, KY
Longview, TX
eles-Long Beach-Santa Ana, CA
ouisville/Jefferson County, KY-IN
Macon, GA
Madera, CA
Manchester-Nashua, NH
Marshall, TX
McAllen-Edinburg-Mission, TX
Medford, OR
Lauderdale-Pompano Beach, FL
Midland, MI
aukee-Waukesha-West Allis, WI
lis-St. Paul-Bloomington, MN-WI
Napa, CA
New Haven-Milford, CT
w Jersey-Long Island, NY-NJ-PA
Odessa, TX
Ogden-Clearfield, UT
Oklahoma City, OK
Orlando-Kissimmee, FL
ard-Thousand Oaks-Ventura, CA
Paducah, KY-IL
nden-Wilmington, PA-NJ-DE-MD
Phoenix-Mesa-Scottsdale, AZ
Pittsburgh, PA
d-South Portland-Biddeford, ME
d-Vancouver-Beaverton, OR-WA
Portsmouth, OH
e-New Bedford-Fall River, RI-MA
Raleigh-Cary, NC
Richmond, VA
ide-San Bernardino-Ontario, CA
Rochester, NY
Rutland, VT
to--Arden-Arcade--Roseville, CA
San Antonio, TX
Diego-Carlsbad-San Marcos, CA
Francisco-Oakland-Fremont, CA
ose-Sunnyvale-Santa Clara, CA
Sanford, NC
Santa Rosa-Petaluma, CA
Savannah, GA
Seattle-Tacoma-Bellevue, WA
Springfield, MA
St. Louis, MO-IL
Stockton, CA
a-St. Petersburg-Clearwater, FL
Tulsa, OK
Vallejo-Fairfield, CA
n-Norfolk-Newport News, VA-NC
gton-Alexandria, DC-VA-MD-WV
Weirton-Steubenville, WV-OH
West Lake, MO
Wheeling, WV-OH
Wilmington, NC
Winston-Salem, NC



2013 NATTS + West Lake, MO -- Methylene Chloride



2013 NATTS + West Lake, MO -- Trichloroethene
Concentration (ug/m3)
1e-01
1e+00
1e+01
1e+02
1e+03
Anchorage, AK
Asheville, NC
inta-Sandy Springs-Marietta, GA
Austin-Round Rock, TX
Bakersfield, CA
Baltimore-Towson, MD
Bangor, ME
Baton Rouge, LA
Beaumont-Port Arthur, TX
Beaver Dam, WI
ston-Cambridge-Quincy, MA-NH
ridgeport-Stamford-Norwalk, CT
Brownsville-Harlingen, TX
Buffalo-Niagara Falls, NY
Burlington-South Burlington, VT
Cedar Rapids, IA
rlotte-Gastonia-Concord, NC-SC
icago-Naperville-Joliet, IL-IN-WI
Chico, CA
incinnati-Middletown, OH-KY-IN
Cleveland-Elyria-Mentor, OH
Columbus, MS
Columbus, OH
Corning, NY
Corpus Christi, TX
Dallas-Fort Worth-Arlington, TX
enport-Moline-Rock Island, IA-IL
Denver-Aurora, CO
es Moines-West Des Moines, IA
Detroit-Warren-Livonia, MI
Douglas, GA
Duluth, MN-WI
El Centro, CA
El Paso, TX
Fresno, CA
Grand Junction, CO
Greeley, CO
-West Hartford-East Hartford, CT
ouston-Sugar Land-Baytown, TX
Huntington-Ashland, WV-KY-OH
Indianapolis-Carmel, IN
La Grande, OR
Laredo, TX
Lewiston-Auburn, ME
Lexington-Fayette, KY
Longview, TX
eles-Long Beach-Santa Ana, CA
ouisville/Jefferson County, KY-IN
Macon, GA
Madera, CA
Manchester-Nashua, NH
Marshall, TX
McAllen-Edinburg-Mission, TX
Medford, OR
Lauderdale-Pompano Beach, FL
Midland, MI
aukee-Waukesha-West Allis, WI
lis-St. Paul-Bloomington, MN-WI
Napa, CA
New Haven-Milford, CT
w Jersey-Long Island, NY-NJ-PA
Odessa, TX
Ogden-Clearfield, UT
Oklahoma City, OK
Orlando-Kissimmee, FL
ard-Thousand Oaks-Ventura, CA
Paducah, KY-IL
nden-Wilmington, PA-NJ-DE-MD
Phoenix-Mesa-Scottsdale, AZ
Pittsburgh, PA
id-South Portland-Biddeford, ME
d-Vancouver-Beaverton, OR-WA
Portsmouth, OH
e-New Bedford-Fall River, RI-MA
Raleigh-Cary, NC
Richmond, VA
ide-San Bernardino-Ontario, CA
Rochester, NY
Rutland, VT
to--Arden-Arcade--Roseville, CA
San Antonio, TX
Diego-Carlsbad-San Marcos, CA
Francisco-Oakland-Fremont, CA
ose-Sunnyvale-Santa Clara, CA
Sanford, NC
Santa Rosa-Petaluma, CA
Savannah, GA
Seattle-Tacoma-Bellevue, WA
Springfield, MA
St. Louis, MO-IL
Stockton, CA
a-St. Petersburg-Clearwater, FL
Tulsa, OK
Vallejo-Fairfield, CA
1-Norfolk-Newport News, VA-NC
gton-Alexandria, DC-VA-MD-WV
Weirton-Steubenville, WV-OH
West Lake, MO
Wheeling, WV-OH
Wilmington, NC
Winston-Salem, NC


2013 NATTS + West Lake, MO -- Styrene
Concentration (ug/m3)
1e-03
1e-01
1e+01
Anchorage, AK
Asheville, NC
ınta-Sandy Springs-Marietta, GA
Austin-Round Rock, TX
Bakersfield, CA
Baltimore-Towson, MD
Bangor, ME
Baton Rouge, LA
Beaumont-Port Arthur, TX
Beaver Dam, WI
ston-Cambridge-Quincy, MA-NH
ridgeport-Stamford-Norwalk, CT
Brownsville-Harlingen, TX
Buffalo-Niagara Falls, NY
Burlington-South Burlington, VT
Cedar Rapids, IA
rlotte-Gastonia-Concord, NC-SC
ıicago-Naperville-Joliet, IL-IN-WI
Chico, CA
incinnati-Middletown, OH-KY-IN
Cleveland-Elyria-Mentor, OH
Columbus, MS
Columbus, OH
Corning, NY
Corpus Christi, TX
Dallas-Fort Worth-Arlington, TX
enport-Moline-Rock Island, IA-IL
Denver-Aurora, CO
Des Moines-West Des Moines, IA
Detroit-Warren-Livonia, MI
Douglas, GA
Duluth, MN-WI
El Centro, CA
El Paso, TX
Fresno, CA
Grand Junction, CO
Greeley, CO
-West Hartford-East Hartford, CT
ouston-Sugar Land-Baytown, TX
Huntington-Ashland, WV-KY-OH
Indianapolis-Carmel, IN
La Grande, OR
Laredo, TX
Lewiston-Auburn, ME
Lexington-Fayette, KY
Longview, TX
eles-Long Beach-Santa Ana, CA
ouisville/Jefferson County, KY-IN
Macon, GA
Madera, CA
Manchester-Nashua, NH
Marshall, TX
McAllen-Edinburg-Mission, TX
Medford, OR
Lauderdale-Pompano Beach, FL
Midland, MI
aukee-Waukesha-West Allis, WI
lis-St. Paul-Bloomington, MN-WI
Napa, CA
New Haven-Milford, CT
w Jersey-Long Island, NY-NJ-PA
Odessa, TX
Ogden-Clearfield, UT
Oklahoma City, OK
Orlando-Kissimmee, FL
ard-Thousand Oaks-Ventura, CA
Paducah, KY-IL
nden-Wilmington, PA-NJ-DE-MD
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